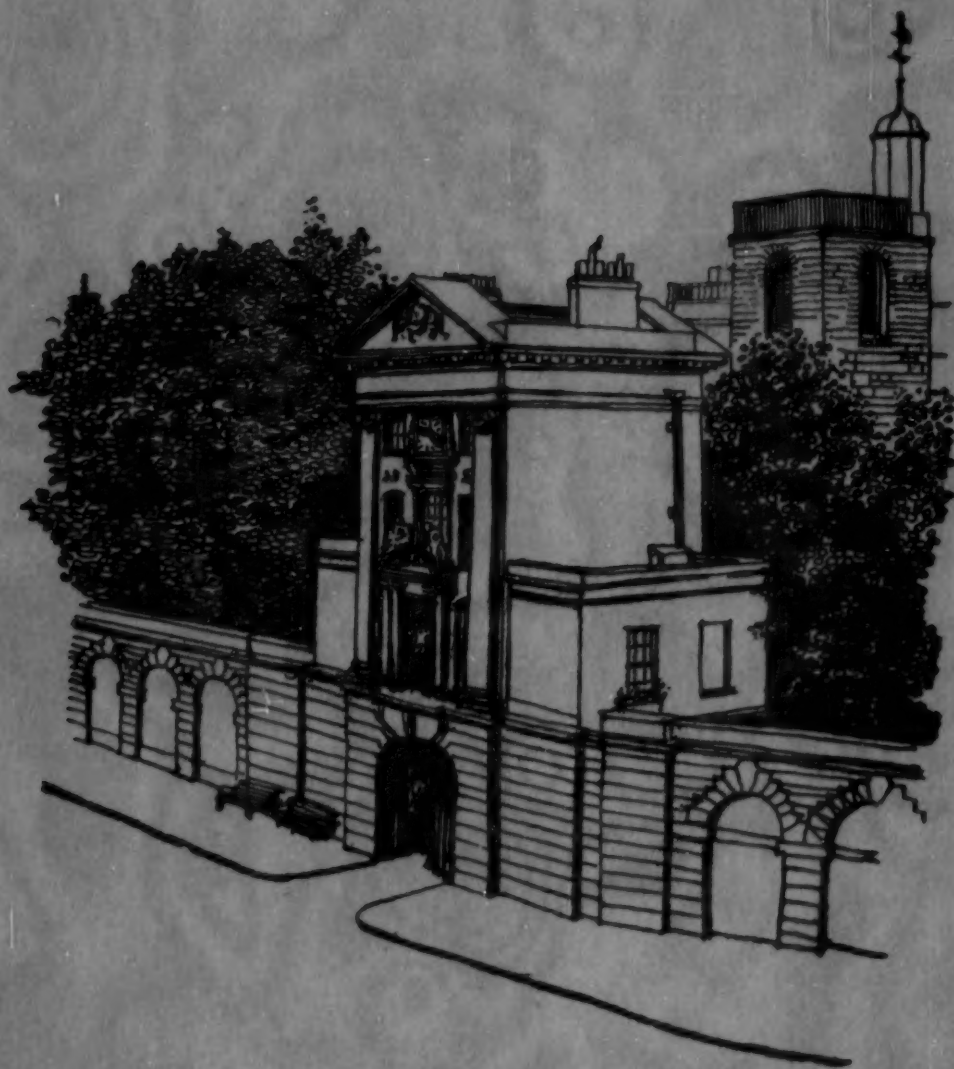


ST. BARTHOLOMEW'S HOSPITAL JOURNAL



VOL LX

NOVEMBER 1956

No 11

ST. BARTHOLMEW'S HOSPITAL JOURNAL

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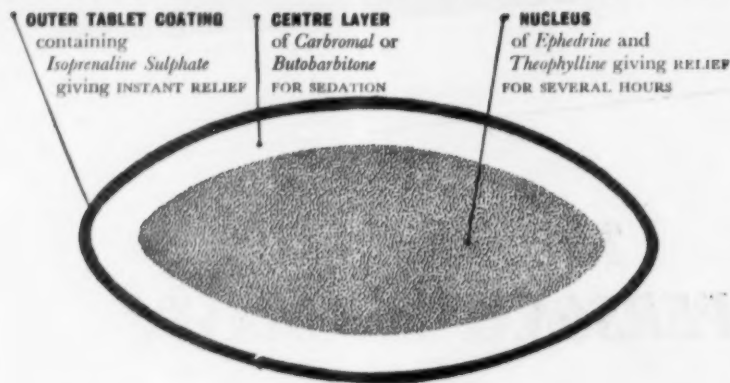
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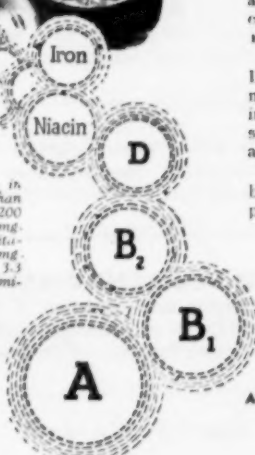
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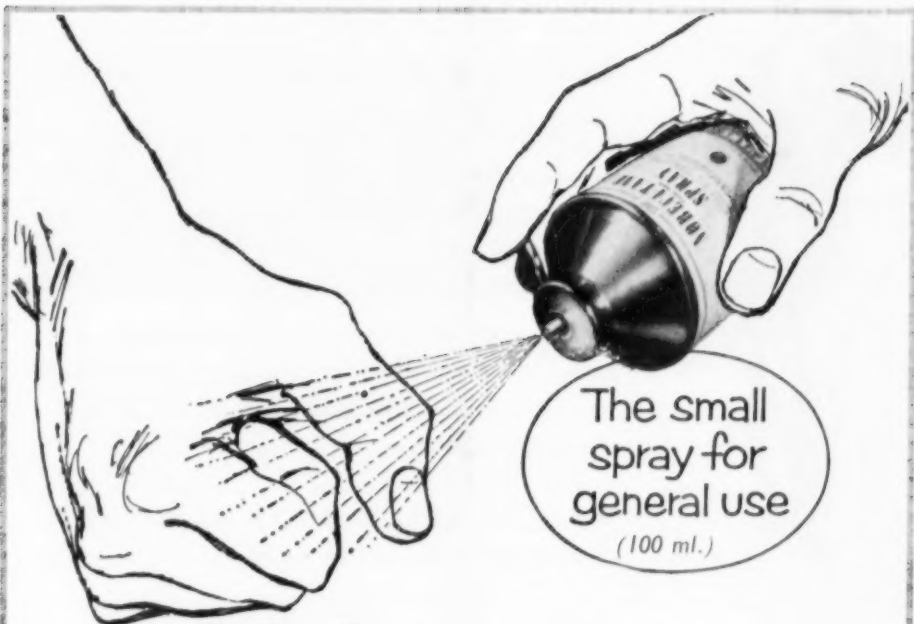
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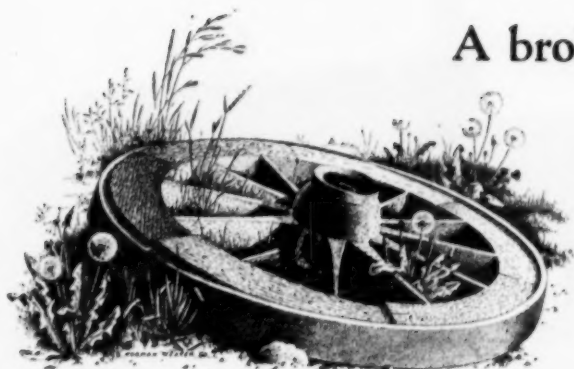
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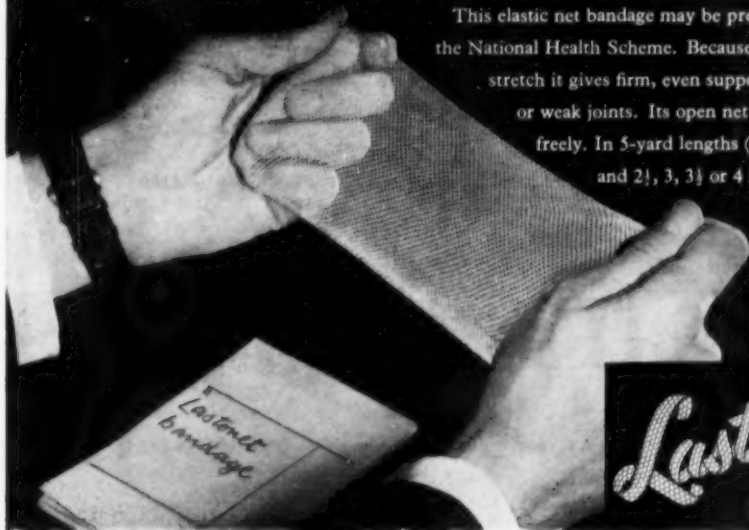
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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LX

NOVEMBER 1956

No. 11

EDITORIAL

In 1953 there were 200,000 occupied beds in our overcrowded mental hospitals and mental deficiency institutions, as against 212,000 occupied beds in hospitals for all other diseases put together.
—The Lancet.

THE FILM 'Snake Pit' brought to public notice some of the more appalling examples of the inadequate accommodation and treatment which exist in mental hospitals. Improvements have been made, as reference to Miss Marion Greaves' article on 'Retrospect and Prospect in Psychiatry' will show. But these improvements have been brought about in the face of public apathy due partly to the disregard in which psychiatry has been held by certain members of the medical profession.

It may be true to say that many mentally ill patients resist every known form of treatment, and that nearly every form of treatment which is practised is purely empirical. However, the position is not hopeless, and the newly qualified doctor should not shun a branch of the profession just because it has had criticism levelled at it. Rather these criticisms should spur him on to make contributions which might refute the critics.

One of the greatest needs at present is an adequate number of physicians trained in the treatment of the mentally ill. The reasons for the relative scarcity of psychiatrists are many. One of the more important has been pointed out by Professor Woodger (whose most recent book is reviewed on another page). He considers that psychology has been brought into scientific disrepute because it has been judged solely by those trained in the physical sciences. Partial solution would be the teaching of normal psychology to medical students, a step which has been advised by various committees but which has

never been taken in most hospitals. This might help to increase the numbers of those undertaking basic research into mental processes and make redundant the closing remarks of J. S. Price's article, in which he says that the Conditioned Reflex is a typical psychological phenomenon in that it is hailed, denied, feared and ignored, depending on the views of the commentator.

Closer liaison between those working in the basic sciences and clinical psychiatrists would give the research worker greater insight into the working of the brain by impressing upon him the derangements of normal functions which can take place. That such liaison does bear fruit is illustrated by the results of the Bart's research group which have been summarized by Dr. Rose.

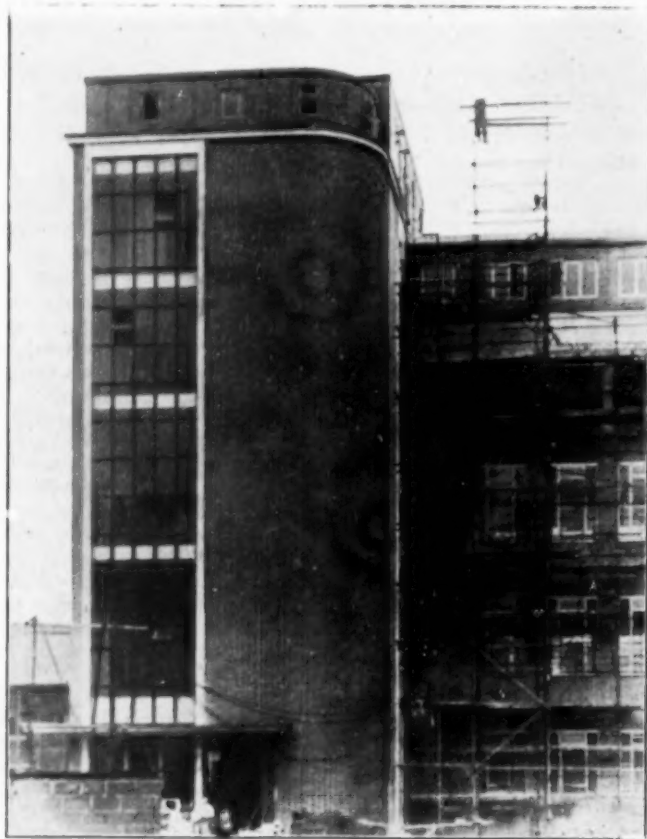
Education of the public in the true causes of 'madness' would help in two ways. Firstly they would not feel so embarrassed when a member of their family, or even themselves, became a voluntary patient in a mental hospital. Secondly they would appreciate, after learning about the possible somatic manifestation of psychological disturbance, that so-called miracle cures were often brought about by successful psychotherapy. The account of Greatraks by Drs. Macalpine and Hunter show how such misconceptions may arise.

Mental Health is a topic which has recently figured prominently in the national Press. While the needs are ignored, conditions will deteriorate as the number of patients increases. It is not overstating the case to suggest that one out of every four specialists is required to treat these patients.

New Physiology Building

The new building at Charterhouse should be completed at the end of November, when Contract 'D', the final contract, is due to terminate. We understand that there is to be no unveiling ceremony, but that the new

once a year, occasionally gorgeously, and sheds its flowers as soon as they appear'. No change has taken place in the policy of the Dramatic Society since it grew out of the 'New Years Entertainment for the Nurses' which used to be held regularly almost a hundred years ago. These earlier



The Entrance to the New Physiology Building.

inhabitants will slip unostentatiously into their quarters and begin to work as soon as the last brick is in place. The next projected structure is to be on the site of the old physiology building, but plans are still being subjected to the usual financial 'if's and but's'.

Amateur Dramatic Society

'Drama at Bart's,' as the *Journal* said in 1953, 'is like a cactus which blossoms but

productions were provided by the generosity of the Treasurer and Almoners (*St. B.H.J.*, 1956, 60, 153) and took place in the Great Hall. Although the bloom of a cactus is pleasant while it lasts, for the greater part of its life the cactus presents a very prickly exterior. The Dramatic Society might change its botanical emblem for something which flowers more frequently, if not quite so luxuriantly. Fortnightly play-readings and occasional productions of one-act plays

would keep the Society active, provide amusing employment for some and entertainment for many, and also enable the producer of the yearly full-scale play to have a much better idea of the acting talent available in the hospital.

In the past one of the major difficulties in casting a play was that of finding ladies for the female parts—often these were played by males. More recently the enlightened Medical College policy has afforded the Society with a number of lady students from which to select actresses, and Matron has kindly permitted nurses to take part.

This year the Society is presenting Noël Coward's comedy 'Blithe Spirit.' It should provide a very amusing evening in the whimsical world of the supernatural. Two performances will be held at the Cripplegate Theatre on the evenings of Thursday and Friday, November 15 and 16, with a probable out-of-town first-night at Hill End on Wednesday, November 14. Tickets priced from 2s. 6d. to 7s. 6d. may be obtained from support of all those able to attend will help the Box Office Manager.

Rahere Choir

The choir are giving a concert in conjunction with the Boyd Neel Orchestra in All Souls' Church, Langham Place, on Tuesday, November 20th, at 7.30 p.m. in aid of the Missions to Seamen. The soloists are Alice Bohdjanian soprano, Mary Crapnell soprano, Hilda Bickley contralto, David Price tenor, Owen Grundy bass, Thurston Dart harpsichord, and Robin Sheldon organ; conductor Richard Sinton. The programme includes the Overture for Trumpet and Strings (Purcell), Brandenburg Concerto No. 3 (Bach), Violin Concerto (Vivaldi) and Cantata 150 (Bach).

College Hall

The future policy regarding rooms in College Hall involves a departure from the present system. All first-year clinical students will be encouraged to live in College Hall and very few will be expected to stay for more than this year.

It is considered that every student should have an opportunity of living in what amount to subsidised lodgings. From the College point of view it will be more economical not to have to give free lodging to all first-time clerks and dressers for a

month. Perhaps the greatest benefit of this change is that students newly arrived at the Hospital will have more chance of associating with their colleagues during their first few days here.

Unfortunately, some of those whose names are at present on the waiting list may be disappointed, as preference will be given to first-year clinical students.

Societies

The Abernethian Society continued in its enterprising programme with a Symposium on Arterial Surgery which was held on Tuesday, October 16. The participants were the Director and Assistant Director of St. Mary's Hospital Surgical Professorial Unit, Professor C. G. Rob and Mr. K. Owen, and the Director and Assistant Director of the Surgical Professorial Unit at Bart's, Sir James Paterson Ross and Mr. G. W. Taylor.

The Symposium was opened by Sir James. Mr. Owen then acted as commentator for a film illustrating the technique of arterial grafting using polyvinyl sponge grafts. Mr. Taylor gave an account of the use of orlon grafts in arterial surgery. Professor Rob then spoke on the indications for arterial grafting.

As Sir James said in his introductory remarks, it is one of the useful functions of a society such as the Abernethian Society to acquaint medical students with 'small print' subjects.

The Physiology Society opened its programme for the term with a talk by Dr. J. A. V. Bates of the Institute of Neurology on 'Stimulation of the Motor Cortex'. In discussing his work on human patients, Dr. Bates considered that the movements produced by direct electrical stimulation of the motor cortex could be regarded as derangements of posture, rather than reproductions of functionally significant movements.

British Institute of Radiology

We congratulate Mr. I. G. Williams, F.R.C.S., F.F.R., on his election as President of the British Institute of Radiology for the session 1956-57. The British Institute of Radiology, which incorporates the Röntgen Society, was founded in 1897, and is the oldest radiological society in the world. Among its previous Presidents have been two distinguished Bart's men, Dr. N. S. Finzi (1926-27) and the late Professor F. L. Hopwood (1932-33).

NOTICES

General Practice Clinical Assistantships

There will be two vacancies for these appointments beginning on the 1st January and the 1st April, 1957, for a period of one year at a salary of £745 per annum.

Applications should reach the Dean not later than the 24th November, 1956 and the 23rd February, 1957 respectively.

Rugby Club Ball

The Rugby Football Club Annual Ball is being revived this year. It will be held in College Hall on Wednesday, November 21, from 9 p.m. to 2 a.m. Cabaret, buffet and bar will be provided.

Double tickets, priced 17s. 6d., may be obtained from any member of the Club Committee.

Journal Staff

The posts of assistant editor and assistant manager of the *Journal* will fall vacant on December 1. Applications for these posts are invited and should be sent to the Editor not later than November 31.

Timetables

Extra copies of the timetable given with the July issue of the *Journal* can be obtained from the Manager, priced 3d.

ANNOUNCEMENTS

Births

HUNT.—On September 27, at the London Clinic to Tony (*née* Chandler) and Alan Hunt, F.R.C.S., a daughter (Alison Jane).

RICKHAM.—On September 2, at Liverpool Maternity Hospital to Elizabeth and P. P. Rickham, M.S., F.R.C.S., a daughter (Mary Anne).

SPAFFORD.—On September 11, to Jean and Dr. Tony Spafford of Manor Cottage, Whitchurch, nr. Reading, a son.

STURDY.—On September 12, at Marston Green Hospital, Birmingham, to Sheila (*née* Gillibrand) and Dr. David Sturdy, a daughter (Joan Elizabeth).

TAYLOR.—On April 3, at Salisbury, Southern Rhodesia, to Edna (*née* Parish) and Dr. P. A. Taylor, a daughter (Hilary Margaret)

Engagements

BUNJE—PRYCE-JONES. The engagement is announced between Dr. Henry William Bunje and Dr. Elizabeth Pryce-Jones.

LOW—SCOTT. The engagement is announced between Dr. Francis M. Low and Miss Juliet F. Scott.

Marriage

HARLAND—BURKE. On October 6, at St. Mark's, Surbiton, David Henry Cave Harland of Lewes to Norah Burke of Surbiton.

Deaths

CROSSLEY-HOLLAND.—On August 27, at Overy Staithe, Burnham Market, Norfolk, Dr. F. W. Crossley-Holland, aged 78. Qualified 1929.

FITCH.—On September 2, at Ambleside, Arthur Alfred Fitch, M.R.C.S., L.R.C.P. Qualified 1917.

LANGHORNE.—On September 20, Mr. D. A. Langhorne, surgeon to the Royal West Sussex Hospital, Chichester, aged 51. Qualified 1927.

MACKAY.—On September 8, Ernest Charles Mackay, M.D., of West Dene, St. Leonards-on-Sea. Qualified 1901.

SYRED.—On September 19, 1956, Dr. Deryck R. Syred of Northampton. Aged 41. Qualified 1940.

TREWBY.—On October 2, at St. Bartholomew's Hospital, Joseph Frederick Trebby, M.R.C.S., L.R.C.P. Qualified 1906.

OBITUARIES

George Murray Levick

We regret to announce the death of Surgeon-Commander George Murray Levick, R.N., F.R.G.S., F.Z.S. He qualified at Bart's in 1902. He was a great adventurer, explorer and sportsman, having taken part in Scott's Antarctic expedition in 1910 as Medical Officer and Zoologist. He served in both world wars, founded the Royal Naval Rugby Union, and was the Leader of the Public Schools Exploring Society. His main sporting enthusiasm was for rowing and with another he made a gal-

lant attempt at the Oxford-London record. When he became a Royal Naval Surgeon he offered to teach an eight on his battleship and coached his scratch crew to victory.

Surgeon-Commander Levick had a distinguished career in the field of Physical Medicine. Among his appointments were Electrologist to St. Thomas's Hospital, Consultant for Physical Medicine to the Victoria Hospital for Children, Member of the London University Advisory Committee for Physical Education, Consultant for Physical treatment to the East Sussex County Council, and Medical Director of the Heritage Craft Schools for Crippled Children.

In 1942 he was awarded the Beck Grant by the Royal Geographical Society for his services to Exploration. He has written extensively on the Natural History of the Antarctic, as well as on the subject of Physical Medicine.

He is remembered by those who knew him as 'one of the best Bart's men who ever struggled with the Conjoint Examiners.' A man of wide interests who will be greatly missed.

* * *

Douglas Alfred Langhorne

We regret to announce the death of Douglas Alfred Langhorne, M.B.E., T.D., F.R.C.S.(Edin.). He was born in Hertfordshire on March 4, 1905. After qualifying from Bart's in 1927, he worked with Sir Harold Gillies for a short while.

In 1931 he married Yvonne Jessop, and they had three sons, John, Oliver and Nicholas.

He spent the greater part of his professional life in Chichester, where he was appointed Consultant Surgeon to the Chichester Group of Hospitals in 1948, and a member of the Advisory Committee (as representative of the Regional Consultants and Specialists Committee) of the S.W. Metropolitan Regional Hospital Board.

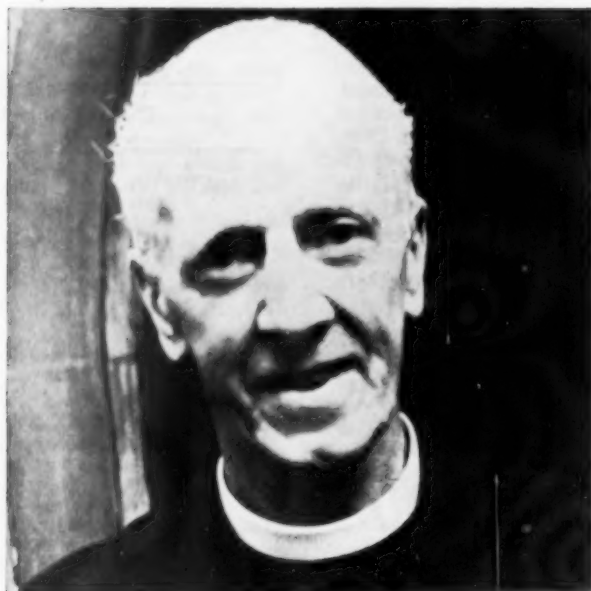
During the war he saw eighteen months' service in Iceland with the R.A.M.C., which was followed by three and a half years on the Burma front, during which his Unit was completely isolated at Imphal for six months. He retired with the rank of Colonel.

He was a man of great charm and his many interests included Natural History, Pre-History, Archaeology, Painting and Sailing.

CALENDAR

Sat.	Nov.	3	Dr. E. R. Cullinan and Mr. J. P. Hosford on duty. Rugger: v. Penzance (A). Hockey: v. Queens' College, Cambridge (A).
Mon.	"	5	Rugger: v. Devonport (A).
Wed.	"	7	Rugger: v. Paignton (A). Soccer: v. The London Hospital (A). Hockey: v. Kingston Grammar School (H).
Sat.	"	10	Medical and Surgical Professorial Units on duty. Rugger: v. Rugby (A). Soccer: v. The 49 Club (H). Hockey: v. Sevenoaks (A).
Mon.	"	12	Physiological Society: 'Application of Nucleophysics to Medicine' by Prof. J. Rotblat, Physiol. Lecture Theatre at 5.30 p.m.
Tues.	"	13	Abernethian Society: Research Papers by members of the Society, Recreation Room, College Hall, at 5.45 p.m.
Wed.	"	14	Soccer: v. Normandy Company R.M.A. (H).
Sat.	"	17	Dr. G. Bourne and Mr. J. B. Hume on duty. Rugger: v. Old Alleynians (H).
Thurs.	"	22	Abernethian Society: 'The Influence of Thirty Years of Natural Child Birth on Obstetrics' by Dr. Grantley Dick Read, M.A., M.D., Recreation Room, College Hall, at 5.45 p.m.
Sat.	"	24	Dr. A. W. Spence and Mr. C. Naunton Morgan on duty. Rugger: v. Treorchy (A). Soccer: v. Westminster Hospital (H). Hockey: v. Old Cranleighans (A).
Mon.	"	26	Physiological Society: 'The Place of Statistics in Medicine' by Dr. M. Weatherall, Physiol. Lecture Theatre, 5.30 p.m.
Wed.	"	28	Soccer: v. St. Thomas's Hospital (H).
Sat.	Dec.	1	Dr. R. Bodley Scott and Mr. R. S. Corbett on duty. Rugger: v. Esher (H). Hockey: v. University College Hospital (H).
Tues.	"	4	Abernethian Society: 'Recent Research at Bart's'—papers by Dr. A. E. Dormer, Dr. P. J. Lauther and Mr. G. J. Hadfield, Pharmacology Theatre, 5.45 p.m.
Wed.	"	5	Soccer: v. St. George's Hospital (H).

THE HOSPITALLER



Canon S. G. Bush.

CANON S. G. Bush the Vicar of St. Bartholomew's-the-Less and the Rev. R. B. Ney, the Assistant Hospitalier are both leaving the Hospital this year. Canon Bush retired at the end of September but is coming back as a Locum in November, when Mr. Ney leaves for Madrid.

Canon Bush came to Bart's in 1951, to his first post as a hospital chaplain, but with many years experience as a priest. He began his work with five years in a dockland parish, then was a Naval Chaplain in the first war. He later served for over twenty-five years in country parishes in Gloucestershire, where he was made an honorary Canon of Gloucester Cathedral.

Before coming to Bart's two years ago, Mr. Ney had been for six years on the Cathedral staff at Gibraltar and before that was a country priest.

What these two men have done for the Hospital and especially for its patients cannot be measured in terms of time spent and visits made. Every day at an hour when even the nursing staff are not yet on duty they have been at their posts in Church. On

Sundays every patient who wishes it has been visited and the Holy Communion administered. On weekdays they have constantly been in the wards talking informally to patient after patient. Canon Bush alone has made 10,000 visits to patients this year. Although it is usual for most of us to appreciate these things only on the rare occasions that we feel a need for them and although nowadays our trust is more often in antibiotics than in God, we are still grateful that these faithful men have been among us.

On September the 26th there was a meeting in the Hall of the Nurses' Home when the Churchwardens of St. Bartholomew's-the-Less, on behalf of many friends, presented Canon and Mrs. Bush with an inscribed silver teapot, and Mr. Ney with two Service Books bound in red calf in recognition of their work in the Hospital.

We wish Canon and Mrs. Bush very great happiness in their retirement at Deal and Mr. Ney every success in his new appointment as Chaplain to the British Embassy in Madrid.

R. E. N.

THE DEPARTMENT OF PSYCHOLOGICAL MEDICINE

by LOUIS ROSE

IN 1938 Eric Benjamin Strauss, M.A., D.M., M.R.C.P., became Physician for Psychological Medicine with charge of the Department in this hospital in the place of Dr. Porter Phillips, an alienist, who was Medical Superintendent of Bethlem Royal Hospital. It is perhaps a significant parallel that while the Bart's Department has developed towards its present composition, Bethlem has become an integral part of the Institute of Psychiatry, closely associated with the post-graduate teaching of the Maudsley.

The days of a half-a-dozen looks at florid schizophrenics, maniacal patients, epileptics and similar show-pieces as the undergraduate curriculum of psychological medicine were over. Dr. Strauss started a then (and perhaps still) unique Clinic in which patients were greeted and submitted to kindly examination in the presence of students who shared in the history taking, the psychopathological and diagnostic procedure, the explanation to the subject, and the choice of treatment — even to the point of composing the report which would be sent to the referring doctor.

Dr. Strauss (pronounced 'Storse, of course' when he first arrived), coming from Guy's and the Tavistock Clinic via the Cassell Hospital, brought with him experience of the psychoneuroses and psychotherapy and an eclecticism founded upon clinical work, wide reading and the wisdom of a man of intellect and knowledge. Alexander Kennedy, his first Chief Assistant, now Professor of Psychiatry in Edinburgh University, recalls how, to emphasize the difference between athetosis and normal muscle movement, 'Dr. Strauss lifted up his shirt and gave a demonstration of the *danse du ventre*, to the delight of all.' The appointment of Chief Assistant invented by Dr. Strauss is now in use in all Departments; these are widely experienced workers capable of taking full clinical responsibility

but not officially holding consultant status on the hospital Visiting Staff. Dr. Strauss began to form the 'therapeutic orchestra' comprising a large number of clinical assistants of differing psychiatric schools and 'soon patients were being interviewed in cellars, corridors, in storerooms, operating theatres — anywhere with a hope of some privacy.' A tea-break was used as a sort of clinical case-discussion at which problems could be aired and brains picked.

In 1939 Dr. Strauss became actively interested in Cerletti's electrotherapeutic work in Rome, and by 1940 had, with Angus MacPhail, designed the electroplexy apparatus now in use in very many Clinics, particularly abroad. The name 'electroplexy' was introduced by Dr. Strauss in place of the frightening 'electric shock treatment', electroshock or electrical convulsive treatment. (He has always disapproved of the term 'E.C.T.'). Mackwood, another former Assistant, writes of an afternoon in February, 1940 — 'we were driving down to the Clinic and on the way he (E.B.S.) said, "This afternoon I am going to give the first out-patient electroplexy treatment; it has never been done before but there is no reason why it should not be given as a routine out-patient treatment. But you can imagine how I would feel if any unforeseen disaster or complication should occur on the first occasion". When one thinks of the adverse criticism that would have been showered on him, and what the House Committee of our oldest, and not least conservative, general teaching hospital might have had to say had anything untoward occurred, one wonders if E.B.S. has been accorded due appreciation for an act of great moral courage in pioneering this line of treatment. It is impossible to estimate the hundreds of thousands of patients who have benefitted by this treatment being at hand in thousands of hospitals all over the world.'

Other psychiatrists in the early days of the Department were Snowden, Fordham and MacLay. We in the Department now live in a clinical climate very similar to that which must have obtained in those early days when John Mackwood was asked to come into the

Louis Rose

Dr. Rose qualified in 1931 at St. George's Hospital. He is a specialist in psychiatry being an Associate Chief Assistant in the Dept. of Psychological Medicine at Bart's. He is also Psychiatric Specialist to the Ministry of Pensions and National Insurance, and to the R.A.M.C. He has written on the problem of suicide.

teaching clinic 'to find E.B.S. demonstrating hysterical aphonia in a middle-aged woman. He said "I want you to take this patient away and come back with her in twenty minutes talking normally." This was good "magic" for both patient and students, and it was combined with clinical acumen. Fortunately the patient was talking on her return twenty-five minutes later.'

The war had disrupted the early work—Assistants had left at once or as the E.M.S. and other duties called, and work was carried on in Frien Hospital until it was possible to return. Coningsby had joined the Department, bringing his wide therapeutic experience and later flair for narco-analytical procedures; also came Douglas Macaulay, and Lovel Barnes. Soon followed Jonathan Gould, and over the years Marion Greaves of the Cassell and Maida Vale, Christopher Scott, Lowy, Stekel's most famous pupil, Castell, W. A. H. Stevenson, Lindsey Wilson and myself. With the loss of Castell, the departure to the United States of Lowy, and the retirement of Coningsby and Marion Greaves, a kindly and respected friend of us all, have come Peter Johnson and Michael Rosenthal. Thirty-three notional sessions are shared by the clinicians in this department. Rosenthal and Johnson are Jungian psychotherapists employing the prescribed 'dream analysis' approach; Lovel Barnes is a Freudian, Scott ('analysed two and a half times') relies on psychoanalytic training for a personal approach less dogmatic than that of the orthodox psychoanalytical (Freudian) school. Strauss, Gould and Rose are broadly-based eclectics employing a variety of techniques including a Stekelian type of psychotherapy, physical methods, narco-analysis, and hypnotherapy. Stevenson, a psychoanalytically orientated therapist, employs very largely a technique of hypnoanalysis. As would be expected, there are occasional modifications of technique and veerings of approach on the part of most of us, but, in general, our orientations are recognized. As in earlier days, we still ask one another's help in a difficult or 'stuck' case and continue to profit from the facility of the newcomer to spot something at one sitting which had escaped the therapist over a long period. (How rarely do we do it for the others in contrast to the number of times it is done for us!). Dr. Strauss is called into consultation in matters demanding overriding authority.

Between 4,000 and 5,000 patients have passed through the Department in the last ten years—and the pace gets hotter. The actual attendances during that period total over 50,000.

Social case-work was undertaken for the Department by one of the Almoners until 1944 when Miss P. M. Perrott was appointed Psychiatric Social Worker, to be joined by an assistant in 1948. During the next year a third P.S.W. divided her time between the Skin and Psychiatric Departments but later became a full-time worker in the latter. Dr. Strauss inaugurated the routine of a full social history on every new patient to be available at first interview and, to this end, patients and their relations are seen either in the Department or are visited in their homes by the P.S.W.s. In the course of treatment and management P.S.W.s may be called upon to deal with Housing Authorities, Probation Officers, Schools, Children's Officers, Employers, personnel managers, other social agencies, Convalescent Departments, P.S.W.s in other hospitals and clinics and education authorities. They are, of course, frequently brought in by the psychiatrist, during the course of treatment, for help or advice on matters of significance in the social situation. Miss P. M. Perrott, the senior P.S.W., with her two colleagues, Miss M. H. Bruce and Miss F. M. MacNamara, an efficient, knowledgeable and kindly trio, are the kind of team to make one wonder how anyone manages to work in this field without a P.S.W. A psychologist, Miss M. Holt, was appointed in June, 1947 for the assessment of intellectual and personality status, established with the use of test-batteries which can be of great value in diagnosis, prognosis and follow-up, both in individual problems and in the control of research series. She also undertakes remedial training of children and adults suffering from primary defects, for example, word blindness. Similarly, the secretarial staff has increased from one to three whole-time workers and it is perhaps worth mentioning that all the intimate case-notes of psychiatric patients are filed separately in the Department and not in the central registry. Also, the psychiatrists, with the knowledge and understanding of the patients' needs, maintain their own appointment sheets.

New patients are seen on Thursday afternoons — there are usually about ten — of which three are assessed in the teaching class

by Dr. Strauss or a deputy, and the remainder shared between the Chief Assistants. Inter-departmental opinions are given by Dr. Strauss and his deputies and urgent problems in Surgery, and occasionally other Wards are dealt with on the Chief's behalf by the senior psychiatrists whenever necessary. All of Dr. Strauss's senior assistants have held appointments of full clinical responsibility elsewhere. Old patients attend on Thursday and Friday afternoons for psychotherapy and electrotherapy (now modified electropexy with anaesthesia and muscle relaxant technique warranting the regular service of an anaesthetist, and his clerks). Electronarcosis with apparatus designed by Drs. Strauss and MacPhail has also been reported on by Drs. Strauss and Gould but has not been used for a couple of years, but there are plans to reintroduce the technique on a new trial series of patients.

In 1946 Gould initiated a monthly dinner followed by a clinical discussion at 45 Wimpole Street, an activity which has been adopted by other teaching hospitals. These meetings are attended by most members of the Department, including P.S.W.s, psychologist and the current 'pink.' Guests have always been welcome provided they are willing to talk and be criticized at the free-for-all in which no offence may be taken at legitimate comment. Here mention should be made of Dr. Ida Macalpine, a regular attendant, although not a practising member of the Clinic. In her capacity as psychotherapist in the Dermatology Department, however, she maintains friendly contact with us and is noted for her ability to quote apt passages from a vast range of psychiatric literature. These meetings have always been popular and much valuable work has been achieved at them, apart from the pleasure of dining and meeting informally and the heightened significance of the clinical group.

Auxiliary activities in the Department include child therapy, formerly at the hands of Lovel-Barnes, Castell and now Rosenthal. Castell also ran the Rahere Club—a weekly meeting, with activities organised by themselves, of selected patients in need of social rehabilitation. The Club disbanded on Castell's departure and efforts are still being made to find new quarters in which to re-establish it; until that time patients are, by kind agreement, referred to one of the Clubs run by the Institute of Social Psychiatry.

Teaching, apart from the Thursday clinic, has spread from the original ten voluntary clerks (they were always over-subscribed) to all students who now receive a three months' course of systematic lectures and demonstrations of the neuroses and psychoses at Bart's, Goodmayes and the North Middlesex. The neurosis unit in the latter hospital was opened in 1953 with Dr. Strauss in charge, and we originally hoped that this might provide the necessary in-patient Department without which no outpatient unit can function entirely satisfactorily. This promise cannot be fulfilled while therapists have no access to their inpatients and Bart's remains the only (I think) teaching hospital in the London area without permanent out-patient headquarters and without its own in-patient set-up. Although the Department has the use of four medical beds, patients in need of hospital investigation and management must be admitted elsewhere, often with loss of contact and much repetition of work. The Senior Registrar in the Department (Dr. Shoenberg) occupies a significant and helpful position in that her time is shared with the North Middlesex unit.

Room space has often been a problem, viewed with a sharp eye by Miss Deal, the out-patients' Sister and her staff, but we receive all the care and attention possible as would be normal in any Department of a hospital of this calibre. New work is being done, and over the years a stream of valuable papers continues to flow:—psychiatric factors in hypertension (Hambling); psychosomatics (Lowy); depersonalisation (Burkitt); physiological studies in psychiatric treatment, psychiatry of major crime, autohypnosis, etc. (Gould); endocrinological approach to psychosexual immaturity (Strauss, Stevenson and others); treatment of speech defects (Coningsby); panormal healing, suicide, short-acting muscle relaxants (Rose); a study of out-patients treated with chlorpromazine (Gould and Rose); work on the physiological and biochemical factors in psychiatry (Gould). I, at the invitation of Mr. Capps, have enjoyed over the past two years a grant from the Research Committee of the Council for work in the E.N.T. department on the psychiatric factors of chronic upper-respiratory disability. Dr. Strauss has been far from silent. He has written many papers, chapters in books, *Recent Advances in Neurology* (with Brain), has translated books from the

German and, in honour of his sixtieth birthday, was the first psychiatrist to receive an honorary D.Sc. from the University of Frankfurt. He also delivered the Croonian lectures in 1952 at the Royal College of Physicians.

A small psychoendocrine research group meets occasionally to discuss ways and means and to report on achievements and problems. This group includes Strauss, Stevenson, Gould, Greaves and Rose in association with Dr. J. C. Batt and his colleagues at St. Ebba's, Dr. Max Reiss of Barrow Gurney, the Director of Army

Psychiatry (Robinson succeeded by Phillipson), and Dr. Tindall, medical advisor to Organon Laboratories. A contribution is being planned for submission at next year's International Congress of Psychiatry.

ACKNOWLEDGEMENTS

Coming in as a stranger to Bart's only nine years ago, it is very likely that I will have betrayed in this brief commentary many omissions and errors. Former Members of the Department have been kind enough to help—Dr. Greaves, Professor Kennedy, Dr. MacLay, Dr. Coningsby and Dr. Mackwood, whose recollections I have quoted.

BRIGHTLY BURNS THE LAMP

41st ANNUAL LONDON NURSING EXHIBITION AND CONFERENCE

SEYMOUR HALL was packed. Svelte sophisticates, tall veterans and plump, efficient-looking midwives jostled against one another in their enthusiasm to get to the brightly coloured stands. Of those who had reached their goal, some were relishing free samples of milk drinks, diabetic chocolate, cheese or mashed infant food, others were earnestly enquiring about the claims of a new pharmaceutical product, and a third group were busily filling their commodious pockets with advertising literature and free samples of tablets, ointments, soaps and shampoos that were being thrust into their hands.

At the end of the hall, past the hospital hairdressing service (nurses a speciality), the temptations of a firm feeding the hungry with 'a complete food,' bookstalls and drug-house representatives, was the display arranged by the Nursing Mirror, the organisers of this exhibition. This display illustrated some of the many aspects of mental nursing, a particularly topical subject. Looking after visitors to the stand was Miss Mary Titchner, the technical editor of the Nursing Mirror. Miss Titchner is a Bart's trained nurse. She left in 1923 and later became Matron of St. John's Wood Nursing Home.

Upstairs, removed from the crush of the exhibition was the visitors' room presided over by Madge, a very jolly lady who dispensed drinks to all 'journalists.' Also

gathered in this place of relaxation were many of the staff of the companies which have leased stands for the exhibition. From their conversation it appeared that the Nurses Exhibition is one of the finest medical exhibitions in the country, partly because entry is restricted to members of the medical and nursing professions. This allows the exhibitors to be sure of the interests and education of the public which they are addressing.

Included in the exhibition are the prize-winning entries of the Nurses' Handicraft Competition. Intricately embroidered tablecloths and exquisitely dressed dolls added a charming touch of femininity to the scene.

Apart from the exhibition there is an associated Professional Nurses and Midwives Conference with lectures and film shows. The standard of these was very high and of great interest to doctors as well as nurses, being given by leading authorities. Mr. D. Fraser was the only member of the staff of St. Bartholomew's Hospital to give a lecture, but Prof. Sir James Paterson Ross and Dr. E. B. Strauss were down on the programme to act as Chairman. Unfortunately a shadow was cast over this conference by the recent death of its president, Sir William Giliat. But the enterprise shown by the organisers and the enthusiasm of the participants were a fitting tribute to this great man.

VALENTINE GREATRAKS

'and divers of the Strange Cures By him lately Performed' on patients from

St. Bartholomew's Hospital in 1666

by RICHARD A. HUNTER AND IDA MACALPINE

SINCE THE days of Hippocrates there has been a general awareness that mental factors may play a part in causing or prolonging organic disease. But while knowledge of physiology and pathology was scanty, such awareness was of little use in the actual treatment of patients. Later, with the rise of pathology, it came to be thought that all physical symptoms had an organic cause. This in turn resulted in the widespread belief that psychiatric patients present with symptoms they refer to their minds, in contradistinction to patients suffering from organic illness who present with physical symptoms. Not until the eighteenth and nineteenth centuries was it realised—at least by orthodox medicine—that many patients who complain of physical symptoms are primarily sick in the mind. Nowadays such patients are variously labelled neurotic, hysterical or hypochondriacal. In the absence of modern knowledge of disease and laboratory and other methods of investigation, it was much more difficult to establish whether such conditions originated in disease of the body or were symptoms of a disordered mind. Therefore the tendency was to treat all patients as if they were suffering from organic disease until the last century, when distinguished physicians and surgeons such as Sir William Gull, Sir Samuel Wilks, Sir Benjamin Brodie and Sir James Paget, showed how mental illness may mimic symptoms of bodily disease. They also pointed out the danger of local treatment of such symptoms, which may aggravate the condition by fixing the patient's attention on the part affected. Thus 'A young lady keeps her bed

for 2 or 3 years for an affection of the hip, and is seen by all the leading men in London. One day the Clergyman walks in, prays over her, and she gets up and walks. The case is reported in all the religious journals as a miracle, whereupon the doctors all join in declaring that the case was one of hysteria, and that there was nothing the matter with her. Then, I would ask, why was that girl subjected to local treatment and to the infliction of physic every day for years?' (1). It was due to the growing realization in the second half of the last century of the need to deal with such patients that psychiatrists—known until then as 'mad-doctors' from their exclusive attention to the frankly insane—were first appointed to general hospitals.

In former centuries this gap in medical knowledge was from time to time rudely brought to the notice of the profession by unqualified persons who took it upon themselves to cure without the aid of the *res medica*, the remedies of orthodox medicine and surgery. Their motives varied from the sincerely religious to the crudely mercenary, and their most rewarding field of activity was among those patients who, suffering from somatic symptoms in the absence of organic pathology, had remained unrelieved by the profession. Often a credulous and enthusiastic laity hailed their cures as miracles and regarded the healer as divinely inspired, while the embarrassed clergy called them imposters and heretics, and the alarmed medical profession remained incredulous and branded them quacks. Yet each of these healers had in the long run a stimulating effect, if only by showing how extensive is the reciprocal influence of mind and body. Their activities served to increase the interest of scientific medicine in this still largely unexplored field, now often referred to as 'psychosomatic'.

VALENTINE GREATRAKS THE STROKER

One of the best known and perhaps one of the most honest if misguided of the many who have thought they had the gift of healing was Valentine Greatraks, who in the year 1666 caused 'the greatest faction and distraction

Richard Alfred Hunter

Dr. Hunter, M.B., M.R.C.P., D.P.M., qualified from Bart's in 1946 and was appointed House Surgeon to the Neurosurgical Unit. He subsequently became Senior House Officer at the Maudsley Hospital and then Assistant to the Directors of the York Clinic at Guy's Hospital.

Ida Macalpine

Dr. Macalpine, M.D., qualified at Erlangen, Germany in 1926. At present she is Associate Chief Assistant in Psychiatry to the Dermatology Department at Bart's.

between clergy and laymen that anyone has these 1,000 years' (2), as well as considerable stir in medical and scientific circles. At the height of his popularity he was commanded by King Charles II to the palace of Whitehall to demonstrate his powers before his Majesty's physicians on three patients chosen from St. Bartholomew's Hospital. He was severely attacked by a clergyman in a pamphlet entitled *Wonders no Miracles: or, Mr. Greatrak's Gift of Stroaking Examined* (3). This led him to reply in *A Brief Account of Mr. Valentine Greatrak's, and divers of the Strange Cures By him lately Performed. Written by himself in a Letter Addressed to the Honourable Robert Boyle Esq.* (4). The book contains the chief facts of his life as well as descriptions of some of the patients he treated in London.

His life.

Greatraks* was born at Affane, Co. Waterford, of an old English family, on 14 February 1629, his birthday suggesting his Christian name. He was educated in Ireland and in England where he spent 'some years in studying Humanity and Divinity . . . in the County of Devon.' In 1649 he joined Cromwell's army in Ireland with the rank of Lieutenant, and served until 1656. He then retired to 'Affane the habitation of my Ancestors, where I have continued ever since, and got by my Industry a livelihood out of the bowels of the Earth, and daily employed many poor people to work, and improved that little Estate I had.' The respect in which he was held is shown by the fact that he was soon made 'Clerk of the Peace of the County of Cork, and Register for Transplantation, and Justice of the Peace,' in which offices he studied 'to acquit myself before God and Man in singleness and integrity of heart.'

Thus he led a peaceful existence until a year or two after the Restoration, when 'I had an Impulse, or a strange perswasion in my own mind (of which I am not able to give any rational account to another) which did very frequently suggest to me that there was bestowed on me the gift of curing the King's Evil: which, for the extraordinariness of it, I thought fit to conceal for some time.' Not able, however, to rid himself of this idea 'whether I were in private or publick, sleeping or waking . . . at length I communicated

this to my Wife, and told her, That I did verily believe, that God had given me the blessing of curing the King's Evil' (4). She told him he was suffering from 'a strange imagination' and 'reveries, and desired him to abandon them: in this perplexity, he heard frequently a voyce within him (audible to none else) encouraging to the tryals: and afterwards to correct his unbelief, the voice aforesaid added this Signe, that *his right Hand should be dead, and that the stroaking of his left Arme should recover it again*: the events whereof were fully verified to him three Nights together by a successive infirmity and Cure of his Arme. Hereupon he set himself to the *charitable improvement* of that talent which God had given him' (6).

His healing.

For the next three years he treated the King's Evil by laying on of hands and stroking the parts affected. He then had 'the same kind of Impulse within me, suggesting that there was bestowed upon me the gift of curing the Ague'; and on 2 April 1665 'God was pleased by the same or the like Impulse to discover unto me, That he had given me the gift of healing [all diseases]: which the morning following I told my Brother and Wife, but neither could be prevailed with to believe it, though for my own part I had a full assurance thereof within me' (4).

By the middle of 1665 'the fame of his performances spread all over Ireland and England, and multitudes went from Bristol unto him' (6). The *London News* for July 13 and 27 reported from Dublin that 'For this month last past there has been great talk of Mr. Valentine Greatraks, and of strange cures he has done, only with touching or stroaking; whereof we have received divers letters from Cork, and of the multitudes that flock about him. He is by some that know him well, reported for a civil, frank and well-humoured man, conformable to the discipline of the Church . . . the multitudes that follow, and the press of people, are only for those to believe that see it' (7). Two or three ships 'well freighted with all diseases' had already brought patients to him from England, 'and most returned well home'.

His methods.

Although he continued 'a stranger to all Physique and Chirurgery' (6) an eye witness account from Dublin to the Royal Society of London 'concerning the cures done by Mr.

*The name derives from the English name Greatorex. The spelling varies, the one adopted here being that of Greatraks' own signature (5).

Greatrix the stroke [sic] (8) shows that he had adopted some surgical techniques: "Where he stroked for Pains, he used nothing but his dry Hand, if Ulcers or running Sores he would use Spittle on his Hand or Finger, and for the Evil if they came to him before it was broke, he stroked it, and ordered them

Fit, by only laying his Glove on their Head, but I never knew any that he cured of that Distemper, for their Fits would return, but I have heard he cured many of the falling Sickness*, if they stay'd with him, so that he might see them in 3 or 4 Fits, else he could not cure them.'



Greatraks stroking the head of a boy.

to poultess it with boil'd Turneps, and so did every Day till it grew fit for lancing, he then lanc'd it and with his Fingers would squeeze out the Cores and Corruption, and then in a few Days it would be well with his only stroking it every Morning; thus he cured many who keep well to this Day [1699], but if it were broke before he saw them, he only squeezed out the Core and healed it by stroking; such as were troubled with Fits of the Mother*, he would presently take off the

The case of Lady Anne Conway.

Greatraks was now so famous that he was invited to Ragley Hall, Warwickshire, to try his hand at curing Lady Anne Conway, one

* 'Fits of the Mother': hysterical fits; 'falling Sickness': epileptic fits. It appears that the two are confused in the above account for one would have expected 'hysterical' fits to be 'cured' and epilepsy to remain unaffected by Greatraks' stroking.

of the most brilliant women in seventeenth century England and one of its most renowned patients. Then aged 34, she had for twenty-two years suffered from increasingly persistent and severe attacks of headache, which remained with her until her death in 1679. Even today the diagnosis of her illness remains a mystery: a recent opinion could only suggest that she suffered from 'a severe and chronic form of migraine' (9). Her kinsman Dr. William Harvey had treated her unsuccessfully between 1651 and 1653, the patient herself excusing his failure on the grounds that he was at the time 'very ill of the gowt almost continually, and that must needs indispose him to the minding of such things as relates not to his owne per-ticuler' (10). Dr. Thomas Willis, the eminent physician and neuroanatomist, under whose care she was when Greatraks was called in, left a detailed account of her illness. According to this, 'our most ingenious *Harvey*' endeavoured as a last desperate measure to persuade Lady Ann to have 'an opening of the Skull, near the grieved place, with a *Trypaning Iron* . . . but neither she, nor any other would admit that administration' (11). Among many other famous physicians and scientists Sir Kenelm Digby had been asked for advice, and Robert Boyle sent her some of his favourite *Ens primum Veneris* made by his own hand 'of strongly calcin'd, and well dulcify'd colcothar of *Dantzic* vitriol, and elevated with sal-armoniac into the form of a reddish sublimate' (12).

This was the patient Greatraks came to England to see in January 1666 for a fee of £155. It was the only recorded instance of his having demanded or accepted payment for his work, and he excused himself for doing so on the grounds of having to 'run the hazards of the enraged seas' and foregoing for some months 'the comfort of my family' (13). Not unexpectedly, his ministrations had no effect on Lady Anne's headache, although he stroked with success a great many of the sick of Warwickshire. 'Mr. Greatrax hath been here a fortnight tomorrow' wrote Lord Conway (14), 'and my wife is not the better for him: very few others have failed under his hands, of many hundreds that he hath touched in these parts'.

The galaxy of notables who had assembled at Ragley Hall to observe Greatraks at work included Bishop Rust, who wrote the following impression (15) of 'Mr. G. the

famous *Irish Stroker* . . . some take him to be a *Conjurer*, and some an *Impostor*, but others again *adore* him as an *Apostle*. I confess I think the man is free from all *design*, of a very agreeable conversation, not addicted to any *Vice*, not to any *Sect*, or *Party*, but is, I believe, a *sincere Protestant*. I was three weeks together with him at my *Lord Conways*, and saw him, I think, lay his hands upon a thousand persons; and *really* there is some thing in it more than *ordinary*; but I am convinc'd it is not *miraculous*. I have seen *pains* strangely fly before his hand till he hath chased them out of the body, *dimness cleared*, and *deafness* cured by his *touch*; twenty persons at several times in *Fits* of the *Falling Sickness*, were in two or three minutes brought to themselves, so as to tell where their pain was, and then he hath pursued it till he hath driven it out at some extreame part; *Running Sores* of the *Kings Evil* dried up, and *Kernels* brought to a *Suppuration* by his hand, *grievous Sores* of many months date, in few dayes *healed*, *Obstructions*, and *Stoppings removed*, *Cancerous Knots* in the *breast dissolved*, etc. But yet I have many reasons to persuade me, that nothing of all this is *miraculous*; He pretends not to give *Testimony* to any *Doctrine*, the manner of his *operation* speaks it to be *natural*, the *cure* seldom succeeds without *reiterated touches*, his *Patients* often *relapse*, he *fails frequently*, he can do nothing where there is any *Decay* in nature, and many *Distempers* are not at all obedient to his *touch*. So that I confess, I refer all his virtue to his *particular temper* and *complexion*, and I take his *spirits* to be a kinde of *Elixir*, and *universal Ferment*, and that he cures (as Dr. M[ore] expresseth it) by a *sanative Contagion* (18).

In London

Disappointed at his failure with Lady Conway, Greatraks had 'resolved speedily to return home' when he received a command from Charles II 'to come to *White-Hall*, which I forthwith observed' (4). Among his first patients in London was one allotted to him for treatment by the King himself—Sir John Denham the poet. Unfortunately he went 'stark mad' soon after being stroked, 'occasioned (as is said by some) by the rough striking of Greatraks upon his limbs; for they said that formerly having taken fluxing pills in Holland, and they not working, they

rubbed his shins with mercury . . . it loadged in his nerves till the harsh strokes caused it to sublimate' (16).

Another early patient, treated on 3 April 1666, was 'Robert Furnace the noted Tinker of Clerkenwel,' who 'had a *Sciatica* in both hips.' His cure was soon 'talked of all over the Town.' He had been 'lame for 8 years, had been thrice in St. Bartholomews Hospital, for eleven weeks at one time, and nine or ten weeks a second time, and for a month the last time, without benefit, being in great pain in his hips and thighs, legs and feet.' He 'was stroked by Mr. Greatrak's, April 3, 1666, and found present ease in his hip upon the first touch of Mr. Greatrak's hand, wherewith the said Furnace's pain was driven downward from place to place without much grievance, until it came to his foot, but when the pain was only in his foot, it was then most intollerable in it, which being gently stroked, he was quite freed from all pain, and walked without his Crutches, which he could not have done for seven years before.' An eye witness reported that 'the Crutches on which he came to Mr. Greatrak's . . . he brought in his hand and presented to me, after he had been strok'd three or four times . . . the Honourable Mr. Boyle being sometime present when this poor man was under Mr. Greatrak's hands . . . that noble person descended to stroke the Tinker's knee, leg and foot with the inside of Mr. Greatrak's glove, and so proceeded to pursue his pains from place to place until they fled quite out at the ends of his Toes' (4). Indeed Robert Boyle subsequently told a friend 'that he had been a spectator of at least 60 performances of his' (17).

Three patients from St. Bartholomew's Hospital

'The *Virtuosi* [Fellows of the Royal Society] have been daily with me since I writ to your honor last' wrote Greatraks on 24 April 1666 to Lord Conway (19), 'and have given me large and full testimonials, and God has been pleased to do wonderful things in their sight, so that they are my hearty and good friends, and have stopt the mouths of the Court, where the sober party are now most of them believers and my champions. The Kings doctors this day (for the confirmation of their Majesties belief) sent three out of the hospital to me, who came on

crutches, and blessed be God, they all went home well, to the admiration of all people, as well as the doctors'.

The three patients chosen for this demonstration were selected from those in St. Bartholomew's Hospital by Dr. (later Sir) John Mickethwaite, who had been appointed by Parliament in 1644 'to be chosen physician . . . in room " of Dr. Harvey, who hath withdrawn himself from his charge and is retired to the party in arms against the Parliament "' (20). However, the Governors did not appoint him 'physician in reversion' or assistant physician until 1648, and full physician 1653 after the death of Dr. John Clarke, Harvey's immediate successor.

The first patient was one Joseph Warden 'a stout Seaman belonging to the *Royal Charles*, who was sent on Crutches . . . to Mr. Greatrak's then in Chancery-lane.' He was 45 years old and 'labouring with violent pains in his hip, ham, and ancle, contracted with carrying out and wading in water.' He had been in St. Bartholomew's Hospital 'for some time without success . . . and complained not so much of his pains, though those he affirmed to be very grievous . . . as that he (who had been in all former engagements against the *Dutch*) should now be disabled (if I may use his own words) to have the other warm Bout with them.' Greatrak's stroked him with 'alacrity and heartiness . . . thrice over from his hip downwards, until all his pains were driven out at his toes ends, and the man walkt lustily to and fro in the Garden, professing his apprehensions of being able to do so for 10 miles, and carried those Crutches one while in his hand, another while triumphingly upon his shoulders, which had been his supporters thither'.

The next patient was William Levell 'a Cook at the *Cock* in *Leaden-hall-street*, aged 24 years.' He had been a patient in St. Bartholomew's Hospital for ten months, 'troubled with a grievous pain in his hip, especially when he walk'd, and a very great pain in his knee, when he sate down'. He 'had his pains likewise driven downwards from his hip out of his toes; so that he confessed himself to be in perfect ease'.

The third patient Francis Steele, aged 63 years, had only been in St. Bartholomew's Hospital for three weeks, but 'had been disabled for 6 months to put on his cloaths, or to put his hand to his head, and sore pained and weakned in his knees, so that he could not walk, nor rise up when he sate down,

without help'. After being stroked by Greatraks he 'had the perfect use of his arms restored, and could and did rise and walk without pain, help, or difficulty'.

of his cures. By the end of May 1666 he was home on his estate, which but for occasional visits to Dublin he did not leave again. He continued to stroke those who came to him

A
BRIEF ACCOUNT
OF
Mr Valentine Greatrak's,
AND DIVERS OF THE
Strange Cures
By him lately Performed.

Written by himself in a
LETTER
Addressed to the Honourable
Robert Boyle Esq.

Whereunto are annexed the Testimonials of several Eminent and Worthy Persons of the chief Matters of Fact therein Related.

LONDON,
Printed for J. Starkey, at the Mitre in Fleet-street, between the Middle Temple-Gate and Temple-Bar. 1666.

Retirement

With such successes to his credit — and they were never gainsaid — Greatraks was glad to be allowed to return to Ireland and his family. The King's physicians were convinced, and men of the calibre of Robert Boyle had lent their names to the authenticity

being ever ready 'cheerfully . . . to cast all his worldly pleasures and delights behind his back, to run himself into the midst of all Diseases, to make his house an Hospital, and foresake his own interest and advantages' (4).

In 1680 a visitor to him in Dublin reported that the door of the house in which he

lodged 'was so crowded, we could hardly git in . . . we were led to his room, where not many at a time were lett in . . . Certainly there must be in him something extraordinary, for there was none that he stroked for pains, but said they were cured. He says, and they comfermed it, that pain flies before nis hand and allways went out at their fingers or toes . . . He is a Gentleman of some £1000 a year . . . Nothing but the thought of doing good could make him indure what he does, for he gits nothing by it but trouble' (21). He died at Affane on 28 November 1683.

GREATRAKS THE MAN AND HIS SIGNIFICANCE

There is no doubt that Greatraks' motives in believing that he could cure the sick were neither personal gain nor the desire for notoriety. Indeed he paid a considerable price for his good works by exposing himself to slander and ridicule, as well as sacrificing much of his time and comfort. What then spurred him on? To answer this question would mean a detailed study of the man for which there is unfortunately insufficient material. We do however know that when about 18 or 19 years old he returned to Ireland from exile in England and found his native country in such a 'most miserable and deplorable state' that he retired 'to the Castle of *Caperquin*, where I spent a years time in contemplation, and saw so much of the madness and wickedness of the world, that my life became a burthen to me, and my Soul was as weary of this habitation of clay, as ever the Gally-slave was of the Oar, which brought my life even to the threshold of death; so that my Legs had hardly strength to carry my enfeebled body about: All company seemed irksome and distasteful to me . . . which caused me seldom during that time to come from my Cell' (4). Psychiatrically speaking, such a state of mind in a young man must be considered evidence of serious disturbance, especially the fact of his spending one year in self-imposed, almost solitary confinement.

Even after conscription into Cromwell's Army which ended his retirement from the world, his sensitive nature came to the fore. During his six years' military service 'I will boldly say I never suffered Quarter to be broken nor violence offered to any that were in Protection; nor did I suffer any one under my Command to oppress or injure any that were in Quarter, without bringing them to

condigne punishment: nor did I permit any Women or Children to be killed though out of Protection, where I had a power to restrain the fury of the Souldier.' He was an upright and honest man: 'I never took Bribe or reward from any man, though I have had many and great ones offered me (when I was Register for Transplantation :) nor did I ever connive at or suffer a Malefactor to go unpunished, if the person were guilty of any notorious crime (where I had a Power :) nor did I ever take the Fee belonging to my Office IClerk of the Peace, if I found the Person were injured or in want . . . for I bless God he has taken away a persecuting Spirit from me.'

The inspiration of his life's work which has given him a place in history, came to him suddenly as 'an Impulse' of which he was 'not able to give any rational account.' It was so extraordinary that he 'thought fit to conceal it for some time' until it overpowered him and he could think of nothing else. As not infrequently happens, the obsession rapidly became 'a voyce within him'—that is an hallucination, being 'audible to none else.' He continued to struggle against the compelling force of his hallucinations until 'the voice aforesaid added this Signe, that his right Hand should be dead, and that the stroaking of his left Arme should recover it again' on three successive nights. This finally convinced him that he had been chosen to cure the King's Evil, a delusion which soon spread to include all diseases. That this belief may justifiably be called a delusion is supported by the fact that his wife and brother tried unsuccessfully to dissuade him, and convince him that he was only suffering from 'a strange imagination'. His belief that he could cure the King's Evil may have been connected with his disapproval of the Restoration of Charles II the preceding year. The personal power of healing by touch was considered a divine gift invested in Kings and touching for the King's Evil in England reached its peak of popularity in Greatraks' time, having been suspended during the Protectorate (22). The King's Evil included a variety of conditions characterized by swellings and rashes, especially around the face and neck, and is sometimes identified with tuberculous glands in the neck and elsewhere.

The practice of stroking has a very ancient history. According to Robert Boyle not even the great William Harvey was averse to giv-

ing it a serious trial: "And I cannot but commend the curiosity of Dr. Harvey, who, as rigid a Naturalist as he is, scrupled not often to try the Experiment mentioned by Helmont, of curing some Tumors or Excrescencies, by holding on them for a pretty while (that the cold may thoroughly penetrate) the Hand of a man dead of a lingering disease; which Experiment, the Doctor was not long since, pleased to tell me, he had sometimes try'd fruitlessly, but often with good successe" (23).

To assess Greatraks from the psychiatric point of view, and consider his mission to heal as a delusion, is not to disparage him or his work. He was by no means alone in being mentally disturbed and yet leaving his imprint on the world. On the contrary, Greatraks was the direct precursor of Mesmer (1734-1815) who was even more seriously mentally disturbed and whose animal magnetism or mesmerism made an even greater impact on the scientific world. The work of Mesmer was in turn the inspiration of Braid (1795-1860) to whom is due the term hypnotism for the mesmeric state. From there Charcot (1825-1893) carried the hypnotic torch forward so that it still burns at the present time.

However, it would be misleading to consider Greatraks' stroking as a type or forerunner of psychotherapy. What Greatraks did was to realize intuitively that various somatic aches, pains, dysfunctions or pareses occur in the absence of organic disease. Even so, he was not aware that he healed his patients through the mind. On the contrary, he remained within the confines of current theories of humoral pathology, believing he drove out the evil and mischievous humours by stroking them to the ends of the fingers or toes, whence they could leave the body. Orthodox medicine was at that time driving them out by vomiting, purging, blistering, bleeding, as well as by issues and setons. Psychotherapy on the other hand is not an attempt to drive faulty notions out of a patient's mind like a faulty humour out of the body, albeit by words. Rather is it an attempt to understand with the patient through sympathetic case-taking how he has come to feel and think as he does; and to trace out with him his fears and fantasies about his body.

ACKNOWLEDGEMENT

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RETROSPECT AND PROSPECT IN PSYCHIATRY

by MARION GREAVES

RETROSPECT

WHEN Dr. Jonathan Gould asked me to give this talk it made me feel very much the oldest inhabitant, as indeed I believe I am, and it also made me realise that I am something of a prehistoric survival, being one of the few remaining psychiatrists who came in by way of general practice. Nowadays there is a well blazed trail of Membership, Maudsley and D.P.M. and that, I think, is one of the reasons why the eclectic psychotherapist is becoming a rare bird. Two paths are open to the budding psychiatrist: 1. The physical approach; 2. Freudian Analysis.

Two things struck me very forcibly while I contemplated this address: Firstly, that it was roughly only twice my own life span since Tuke (at the Retreat at York), inaugurated the humane treatment of psychotics; secondly, that I have had the privilege of living my psychiatric life through the most exciting and progressive changes psychiatry has ever known. The very name 'psychiatrist' has come into use within that time — they used to be called alienists, and two, and only two methods of treatment were available. Either relegation to an Asylum—or sedation, largely by means of bromide. I have the impression that even Medinal, the only barbiturate in general use, was rarely and sparsely given.

The name 'mental hospital' again is of recent use. They used to be either 'County Asylums' or 'Private Asylums'—i.e., places of refuge—but in no sense curative.

As a Medical Student, the only psychiatric training which I had was 12 lectures and 12 visits to the local Asylum. Shaw Bolton was the Professor—and I'm afraid we all regarded the thing as a rather poor joke, or alternatively, as a sheer waste of time, being

quite certain no question on it would be asked in the Final. We went to just enough to get signed up. I don't think we ever saw anything but deteriorated dementia praecox cases in corners with their faces to the wall; chronic melancholias—(I am talking the language of the times)—sitting bowed in their chairs, florid paranoics or very manic manias. We regarded the padded room and a form of strait waistcoat with fascinated horror. When I think of what Bart's students get taught today I am green with retrospective jealousy.

After I qualified and was 'In the House' there was no psychiatric department in the hospital, which was a large and surgically famous teaching hospital of 800 beds.

But all the same, my first awareness that the psyche could influence physical well being came from my surgical chief, that very great man Lord Moynihan. Dr. Strauss often reminds me of him in his insistence on treating the patient as a person with an illness, not as a case of such and such. He also taught, what to me was a novel conception, that a mental attitude could and did influence a physical process.

The North of England

After this circumstances sent me into general practice in the North of England, and it was during those ten years from 1923 onwards, that I made my first real contact with psychiatry. Knowledge of the work of the Tavistock Clinic percolated even to the wilds of Yorkshire. I came up whenever I could to lectures, etc.—but it seemed the only way to learn how to tackle patients was to be tackled oneself, so I had some pretty informal analysis from J. R. Rees and later from Jane Suttie. Eventually, with fear and trembling I began to deal with patients myself, with varying success in view of the fact that one's only weapon was some form of analysis. My first patient was a young pro-

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An address given to the Department of Psychological Medicine.

fessional man with an anxiety neurosis who had broken down from alleged overwork. He had been ill for two years, and after seeing a very famous Alienist in Town, for these two years he had had no treatment other than Medinal Gr.V. at night, and bromide in large quantities during the day. Rather to my surprise, he got well under treatment and this gave me confidence.

Well, after these ten years, (during the last five of which I treated more and more psychiatric patients) it became possible to break away from general practice, and I thought it would be a good idea to learn something about psychoses. There was an incident during my time in practice which well illustrates the prevailing climate of opinion, when a very charming and senior colleague made a special and somewhat portentous call on me. He said that he had heard, with great regret that I was mixing myself up with that 'nasty Freudian business' and did I realise what a bad name I should get!

The Lawn, Lincoln

In order to learn about psychoses I went to The Lawn, Lincoln, as Medical Officer. The Lawn was a very old Registered Mental Hospital: there were, I think 12 or 13 of these, most of which unfortunately have been taken over. They were endowed, run by a Board of Governors for private patients, non profit making, and fees were about £3 3s. 0d. for private rooms. There were about 60 patients at The Lawn and the staff consisted of Superintendent and one M.O. with an excellent Nursing staff, most of whom had been there for years. The M.O. had to be a good deal of a dogsbody, doing the dispensing, spending a lot of time with the patients, teaching them country dancing, playing Whist with them, taking them for picnics and to Church, and so on. As you can imagine it was a bit trying at times—but I've never regretted that close contact with them. The Lawn was a very much accepted institution in the town, and no one minded if Queen Elizabeth the First, in full rig, sailed into Matins in the Cathedral.

I don't think we ever expected anyone to get well there. The Manic-depressives certainly went out for their remissions, but we knew we should soon see them back again;

so we were a fairly static community. Treatment consisted of sedation, meticulous attention to physical health, and rest. (I did learn there the value of rest in depressions). But one thing there was, and that was occupational therapy. Dr. Elizabeth Casson had been Superintendent there for a time, and introduced it. We had no therapist, but the Nursing staff carried it out, supervised by the Superintendent, and I was, and am persuaded of its value, and very sorry to see that it is no longer used to the same extent. I'm sure it reduced the need for sedation, and improved the patients' happiness and morale.

By the way, there had never at any time been a padded room at the Lawn—it was the first hospital to follow The Retreat in a humane attitude to patients. There were plenty of nurses, and a lot of specialising was done.

The Cassell Hospital

I got my D.P.M. when I was at The Lawn, and from there went to the Cassell Hospital, at Penshurst. Unfortunately two great men had just left before I went—T. A. Ross and Eric Strauss.

There were 65 patients, men and women, and 5 Medical staff. Every patient had a daily interview. Treatment was by psychotherapy, and a loose type of environmental discipline. Occupation in or out of doors was more or less compulsory for anyone well enough to do it. The Cassell was presented and endowed by Sir Ernest Cassell, who also gave Midhurst Sanatorium. It was a lovely place with huge grounds, including a 9 hole golf course, and had a ballroom and every other amenity. Fees again ranged from £3 3s. 0d. in a small ward to £8 8s. 0d. or £10 10s. 0d. for a private room. Patients were referred by their G.P., or preferably by Consultants; there were several on the Governing body. The Medical Director controlled admissions. They came in and we did our best with them. If they were too psychotic they were specialised until they could be admitted elsewhere.

Drug treatment had been improved by this time, and many more sedatives were available. While I was there Benzadrine was introduced, and we did a lot of tests on its action on the circulation, etc., with no ill-

effects other than one old gentleman nearly dying of heart-block.

T. A. Ross claimed spectacular results at the Cassell. Anderson has thrown doubt on the validity of these, stating that many of these so-called cured psychoneuroses returned, having really been recurrent depressives who were having remission not due to treatment. We certainly did not fuss so much about diagnosis in those days, as it did not make much difference; having no E.C.T. to offer, it was psychotherapy or nothing. However faulty the diagnosis may have been, T. A. Ross's book "The Common Neuroses and their Treatment" was and is a valuable antidote to Freudianism and a firm common-sense basis for psychotherapy.

The patients had a very free life, and therefore disasters of one sort or another were not unknown. I'm afraid there were suicides. I believe Ross maintained that a hospital of this type was not doing its job if it did not have suicides, as it would be shirking necessary risks. Other tiresome happenings were of course affairs between patients, with at least one unfortunate elopement in my time, which has since ended in disaster. Of course, the main factor as regard depressions was the absence of E.C.T. and the failure to assess depressions adequately.

In 1937 I went to work under Forel at Les Rives de Prangins on Lake Geneva for a short time. It was a marvellous place. Insulin was being used a great deal there, and I saw fits induced by Cardiazol which I must say was a horrid sight. The points which impressed me very much were the large proportion of nursing staff to patients, and the fact, again, that medical and nursing staff very much shared the life of the patients. The patients had the continual stimulus of ever changing contacts with different people, and the value of this was obvious. The insulin patients especially always had members of the staff with them to stimulate them to activity and keep them in contact in the intervals between comas.

When I got back to the Cassell they were using evipan abreaction, on resistant obsessional neuroses with good results. Rogerson afterwards used gas and air from a Minnitt apparatus, a method I liked better and still use sometimes, though I do find abreaction under anaesthesia is a method I need to use less and less; on the whole I don't think it

really fulfils its purpose of shortening treatment.

I should think the greatest advance in the history of psychiatry is the use of E.C.T. I needn't enlarge on this — everyone knows the part that Dr. Strauss played in its introduction to this country; but perhaps what everyone does not realise is the improvement in the diagnosis of depression which it has brought about and indeed necessitated. I wonder if we are at the end of this? E.C.T. does not always do in cases where one would expect it to; sometimes in cases where one takes a long shot it works like a charm, and one would very much like to know why. I think too, in many clinics physical methods are relied on too exclusively, and the social help and change of attitude which psychotherapy might bring about when the depression is cured, are not used; with consequent relapse.

The War came — the Cassell, after suffering its share in the Battle of Britain, went to the Midlands, a step from which I don't think it has ever recovered in certain ways. I had a year at Springfield after this, at the same time making a tentative start in London practice, and being appointed psychotherapist at Maida Vale. There I was asked to deal with the children, about the treatment of whom I knew nothing. I therefore took a job at Gt. Ormond St. as clinical assistant under Mildred Creak, but unfortunately the Army took her away shortly after; so I learnt the hard way by running the Clinic, and at Maida Vale became very interested in psychogenic factors in epileptic children, of whom I saw a large number. Since the war I have had the honour of working at Bart's.

PROSPECT

Leucotomy is the newest weapon of the psychiatrist. I have little experience of this and find it difficult to make up my mind as to the ethical question involved. The main advance at present seems to be in the metabolic field. For example we have Dr. Jonathan Gould's work on vitamins, and the investigation on diandrone which is going on at present and in which Dr. Strauss' Department is collaborating, as well as the introduction of the many and varied drugs, largactil, reserpine, benactyzine, and so on, with all the fields of observation they open up. This

would seem the most fruitful field for advance at present.

As regards psychotherapy, unfortunately the field is held at present by a sterile Freudianism. The eclectic psychotherapist is becoming an extinct animal. I feel myself that advance may lie in a deeper understanding of the nature and value of the personal relationship between psychotherapist and patient. I am very sure that the transference situation is not the whole story; it is much more complex. I know very well the dangers of it, but I know also unless one can get the delicate balance of it right — little or nothing happens, and that if one can achieve this balance something may happen in the most unpromising cases. I think we have to be much less frightened of it.

On looking back, one of the most striking things is the hope and enthusiasm with which every innovation in treatment is greeted; but with the exceptions of E.C.T. and some forms of psychotherapy, interest has faded and they have been relegated to a minor role. I sometimes wonder whether as a class we psychiatrists lack the critical and discriminating mind. I suppose, while we are entirely in the dark about the pathology of the conditions with which we are dealing, and indeed of the very nature of the psyche and of the body-mind relationship, it is bound to be so, and it is a case of any port in a storm. To quote some examples: analysis has failed to give the answer to all problems, as in the first wave of enthusiasm after the first world war it was expected to do; the sphere of usefulness of insulin in schizophrenia I believe is limited, and whether this is due to the fact that the word schizophrenia covers a multitude of pathologies it must be for more experienced people to decide. The interesting point about electroplexy is although it was first used as a substitute for insulin to produce the convulsion in schizophrenia, its main sphere of usefulness is now in quite another disease. This form of treatment is unique in that it becomes ever more firmly established, but I believe there are still questions to be answered as to the selection of cases and of prognosis.

Hypnosis seems to come in waves of popularity and which then recede, never quite having 'delivered the goods.'

About many things we are still completely in the dark. There are the manic-depressive

psychoses, where we can do nothing but cut short the depressive phase, and Paranoia which is even more mysterious and baffling. In alcoholism except for Dr. Jonathan Gould's vitamin cocktail, which seems to work miracles in the acute phase, treatment is unsatisfactory. Apomorphine and antabuse sometimes give temporary relief, but are on the whole disappointing. Alcoholics Anonymous, who have such a following in the States, I find interesting, because in spite of the mixture of Oxford Groupiness and amateur psychotherapy there is again the factor of a personal relationship.

Now we have this wave of enthusiasm for leucotomy, and for the chlorpromazine drugs and their like, which hold the field at present. Time will show their permanent value.

I think in a retrospect I should say something about facilities, which in the so-called Welfare State have been so disappointing. Outpatient treatment, except in private, is difficult to obtain. I need not tell a Bart's audience about pressure of work and waiting lists. Inpatient treatment is equally difficult. Voluntary patients have to go on waiting lists of unpredictable length, and it is a long undertaking to get the D.A.O. to take in anyone who is not actually raving. For the private patient, things are even worse. The endowed hospitals where they could have had treatment for very moderate fees have nearly all been taken over, and are crowded out. Mentally defective children may have to wait up to 3 years for placement; and so the story goes on. In spite of improved methods of treatment, facilities lag ever farther behind.

But there is one element for good which I think outweighs everything else — the abolition of the old hopeless attitude towards mental illness as just 'one of those things' about which nothing could be done. There is a vitality, and a hope, and an eagerness to seek for cause and cure; a feeling that as Edward VII said of T.B. 'If it is preventable, why not prevented?'

Surely something must come from all this interest and enthusiasm; and one by one all the problems must yield their solutions, so that the psychiatrists of the future may know not only how to cure mental illness, but how to prevent it; how in fact to do what the present day workman fears so much, to work themselves out of a job.

SPIROCHAETAL CONVERSATION

(With apologies to Messrs. Gallagher and Shean)

Oh Mr. Wassermann, oh Mr. Wassermann
It seems that things have changed since days
of yore
When the Tudors were in power
You had your finest hour
But now you come in Stages I-IV.

Oh Mr. Kahn, now Mr. Kahn
We prefer to work more stealthily today
But when Hitler got a dose
He began to feel morose
Injurious? Mr. Wassermann
You mean mercurious, Mr. K.

* * *

Oh Mr. Wassermann, now Mr. Wassermann
There's something else that's preying on my
mind
When I think of all your gaffs—
Look at those resistant staphs
Why is it that they've left you right behind?

Well, Mr. Kahn, now Mr. Kahn
With these coecal forms we just don't care to
play
We've got plenty in reserve
All we do is just uncurve
Antigenic? Mr. Wassermann
Schizophrenic Mr. K.

* * *

Oh Mr. Wassermann, now Mr. Wassermann
I've been hearing rather strange reports of
you
Folks have said without a doubt
That you'll soon be stamped right out
Will you tell me Mr. Wass'mann is this true?

Oh Mr. Kahn, dear Mr. Kahn
I'm afraid that with the facts you're not au
fait
Now the Kremlin has a strain
Causing softening of the brain
Pretty slyish Mr. Wassermann
G.P.I.—ish! Mr. K.

* * *

Oh Mr. Wassermann, dear Mr. Wassermann
These statistics never make much sense to
me
As we weigh the cons and pros
And we try to diagnose
Are you ever found without a history?

Well Mr. Kahn, now Mr. Kahn
You'd be surprised how far we go astray
We've been carried from Khartoum
To the Ritz's powder room
Dr. Nicol! Mr. Wassermann
S'ap and tickle Mr. K.

* * *

Now Mr. Wassermann, oh Mr. Wassermann
I've a problem here on which we can't agree
Was it with Columbus' crew
That you made your first debut
Did the Arabs bring you up the old Red Sea?

Oh, Mr. Kahn, dear Mr. Kahn
I can give you all the answers right away
They discovered me at Bart's
So I'm not from foreign parts
That's abysmal Mr. Wassermann
That's aneurysmal! Mr. K.

J. D. PARKER

PSYCHOSOMATIC SKIN DISEASES

by SHERWOOD MATHER

THIS SHORT article is devoted to considering changes in the skin as the expression of psychiatric disturbance. For this purpose the skin is particularly suitable, in that it is the limiting membrane of the organism, and represents the barrier between the inner and outer worlds. That normal emotions are manifest in the skin is obvious from a consideration of blanching, flushing, sweating and the pilomotor response with their emotional connotations. It is also well proven that psychiatric manipulation can produce other changes. Numerous workers have reported the production of weals, blisters, echymoses and herpetiform eruptions by the use of post-hypnotic suggestion. In fact, the skin, with a frequency surpassed by only the gastro-intestinal tract, is the most usual medium for the expression of psychic disturbance, and it is the realisation of this fact which has led to the appointment of the Psychiatrist to the Skin department.

HYSTERIA

Before coming on to consider the types of lesion which may fall into this category, it may be useful to discuss the types of psychiatric disturbance with which we shall have to deal. The term *hysteria* is one that is brought into many discussions of differential diagnosis, and it would be useful to consider what is meant by the term. I should like to suggest the following definition—'Hysteria is a disturbed mental state which may be developed in any person as a response to unwelcome environmental conditions. It is manifest by the production of symptoms of an extremely diverse nature, the object of which is the avoidance by the patient of these unwelcome conditions. It is differentiated from malingering by the fact that, by a process of dissociation, the patient is not consciously aware of the end towards which his symptoms are directed.' If this definition is allowed, then the psychogenic production of symptoms of any kind, provided that the psyche, regarded analogically, is not damaged, and that neither obsessive nor anxiety states are present, will by defini-

tion be hysterical. This is so in the majority of cases.

However, it must be an all too frequent occurrence that patients are referred to the Department of Psychological Medicine because no organic basis for their symptoms has been found. This absence of visible pathology is not enough, for the diagnosis of hysteria is not a diagnosis of exclusion. Hysteria is as well recognised an entity as a tumour of the brain, and like a tumour of the brain, has its own signs and symptoms. The conversion hysteric is emotionally unstable, ambivalent and immature, and has a vivid fantasy life and imagination, while the anxiety hysteric has a nameless dread, is irritable and moody, and has nightmares and phobias. Characteristically in both, the patient is unconcerned about his symptoms, an unconcern which has its roots in the self deceptive dissociation, and which may go as far as the 'belle indifférence' of Janet. Of course, a very important point in the history is the recurrence or exacerbation of the symptoms each time the patient is brought into contact with those conditions which he particularly wishes to avoid.

ECZEMA

Passing to a consideration of the part played by psychiatric disturbance in the production of skin lesions, it might be rewarding to consider the aetiology of eczema. In the teaching in the Skin department, the plurality of aetiology of this condition is being constantly remarked upon. In one patient the aetiology is almost entirely exogenous, while in another endogenous factors are mainly to blame, but in almost all cases both sets of factors are implicated to some degree. This being so, it is hardly surprising that the majority of patients suffering from eczema should fall into the same psychological category. Nor is this true for eczema only. Dr. McKenna has demonstrated correlations which exist between certain skin diseases and the common psychological types.

On the subject of the symptoms themselves, pruritus, either localised or genera-

lised, is perhaps the most frequent complaint. Consider only the number of remarks in everyday language which refer to it. Remarks such as 'I am itching to do so and so,' or 'He gets under my skin.' Such statements take on an added significance when it is realised that they are all of the type which may be made under conditions of stress and mental tension, in other words, in precisely those conditions from which hysteria may arise. Other symptoms commonly met with are anaesthesias and parasthesias of various kinds.

It is a characteristic of such symptoms that they represent what the patient feels ought to be the symptoms of his disease, and the lower the intellectual level and education of the patient the more bizarre do they become. With the progress of education the grosser manifestations of hysteria are rarely met with today, such things as amnesias and fuges, fits and paralyses, are the hysterical symptoms of a patient of simple mentality. On the sensory side, an anaesthesia of the stocking and glove type, which does not correspond to the known dermatomes is clearly hysterical, but the better instructed the patient, the more difficult does it become to discover the aetiology of his symptoms. The diagnosis of hysteria is difficult in a nurse or a doctor, and extremely so in a neurologist.

I shall now turn to the production of psychosomatic lesions proper, limiting the term to the exhibition of symptoms without visible pathology, or symptoms, the severity of which cannot be accounted for by the minimal changes which can be discovered. From time to time, almost all skin diseases have had a psychogenic factor postulated in their aetiology, and in view of the varied skin lesions which can be produced by means of post-hypnotic suggestion, this is perhaps not surprising. Some of the diseases so mentioned in the literature are urticaria in its various forms, pemphigus, herpes simplex, herpes zoster, some types of oedema, eczema, erythemata, psoriasis, lichen planus, alopecia and warts, to mention but a few.

DERMATITIS ARTEFACTA

Special mention should be made of dermatitis *artifecta*. Obviously the deliberate production of skin lesions cannot be said to be taking place below the level of consciousness, and in respect dermatitis *artifecta* is a

symptom of hysteria which verges on malingering. Nevertheless, the behaviour is properly termed hysterical, since the underlying mental processes are directed at the gaining of attention, and not the attainment of a predetermined material objective. A consideration of the following case will make this distinction clear. Miss E. O. aet. 26, a rather inadequate personality, was admitted to a surgical ward with a chronic paraonychia of one year's duration. By interfering with her finger she prevented its healing, and became prone to scratch and infect the accessible parts of her body with it. She admitted that 'she had never been out with a man in her life,' and under pentothal displayed considerable emotion, and stated that 'her life was empty,' and was 'passing uselessly away.' Her finger by this time was so fibrotic that it had to be amputated, but she seems to be making a good response to psychiatric treatment. In this case the object was obviously the attraction of attention to herself, and not any material gain resulting from the amputation of her finger.

The importance in the history of recurrent attacks of symptoms has been mentioned, and sometimes this connection of cause and effect is recognised by the patient, although he rarely realises its true significance. More usually however, the relationship is only discovered on direct questioning by the psychiatrist. Nevertheless it often happens that the dissociation has proceeded to such a degree that the connection has been pushed into the subconscious beyond the level of recall, and in these cases examination under hypnosis or under pentothal is useful. These methods break down the inhibiting bounds between the conscious and subconscious levels, and the connection can be brought out and displayed by the examiner.

PROGNOSIS AND TREATMENT

Finally, a few words with regard to prognosis and treatment. The immediate prognosis in any acute episode of hysteria is good, but the ultimate prognosis depends upon the severity of the underlying lesion. It is likely to be influenced by the emotional stability of the patient, on the degree to which integration is possible, and the importance to him of the conflict which is responsible for his symptoms. Generally speaking, the younger the patient, the better is the

ultimate prognosis, and it is also a favourable sign when the hysterical manifestations show a fluctuation in their severity.

Treatment falls under three headings—general, specific and symptomatic. The axiom of general treatment may be summed up by saying that once a condition has been established as hysterical, the less attention paid to the actual form the symptoms take the better. Prolonged spells in hospital, with numerous complicated tests and frequent dressings are to be discouraged, and the thought fostered in the patient's mind that his disease is understood and can be cured. This general treatment can be applied to all patients. Of specific and symptomatic treatments, the former is the method of choice, being directed at the underlying mental

disease, and the latter employed when the results of specific treatment is insufficient. Essentially, the object of specific treatment is to give the patient insight into his condition, and to explain to him the nature and origin of his inner conflict. The importance of that conflict should be minimised, and the actual reasons for it removed, although this last is not always possible. He must be persuaded, if necessary with the use of hypnosis, that once his conflict is brought up to, and faced at the conscious level, his symptoms will disappear.

ACKNOWLEDGEMENTS

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STUDENTS UNION

COUNCIL MEETING

A meeting of the Student's Union Council was held on September 26th. The following points were discussed:—

1. Redecoration of the Abernethian Room:—A letter has been sent to the Executive Council thanking them for the decorations in the Abernethian room. The ultimate aim is to change the style of the Abernethian room, to have it made into two small rooms with a communicating door and a door leading into the corridor by the Out-patient department. It is also hoped that new furniture will be provided. No decision regarding these changes will be taken until the Hospital Committee has decided whether to incorporate the A.R. into their plan to extend the Out-patient department.

It is hoped that a heater will be supplied for the part of the A.R. furthest from the fire.

The Council decided to replace the existing iron lockers in the Abernethian Committee room by two wooden chests of drawers for the use of club secretaries.

Next the existing cloakrooms in the Hospital were discussed. The Council was agreed that the cloakroom accommodation should be modernised, the lighting improved, the plumbing improved and generally cleaned.

An estimate for complete modernisation and provision of lockers for students in the cloakroom had been received by Mr. Morris. £4,000 would be needed and the work would take about four months to complete.

2. British Medical Students' Association:—the B.M.S.A. conference this year will be held in Belfast and three members will be sent. The members are Mr. B. Hill, Mr. G. Burles and Mr. R. Hadley the pre-clinical representative.

Mr. Burles has for the past year been engaged on work concerning the 1st M.B. Curriculum and is due to report to the Conference in November.

3. A party of Glasgow medical students will visit the Hospital on the morning of December 18th.

4. College Advisers:—Professor Rotblat suggested that the members of the Council should think about this matter as the idea was basically a good one, but in practise it had not appeared to work at all well.

5. Pathology specimens:—it was reported that some of the Pathology specimens from the teaching collection in the museum had been moved to the Nurses Quarters for teaching. This was inconvenient for Final year students doing their revision. The Secretary was asked to write to the Dean asking if this practice could be avoided.

6. The Council agreed that the Tommy de Rosa band should be booked again to play at the View Day Ball at the Park Lane Hotel.

THE CONDITIONED REFLEX

by J. S. PRICE

THE Conditioned Reflex lies in a sort of No-Man's Land between physiology and psychology. Apologetic references to it may be found in the backs of Textbooks of Physiology. In psychological books it is usually swallowed up in the great field of Learning, because it comes in the category of 'alteration of behaviour by experience.'

Pavlov, who was the first to describe the phenomenon, was already a famous physiologist (in fact, a Nobel prize-winner for his work on the digestive glands) when he entered the field. He insisted that the conditioned reflex was essentially physiological; which was a happy start, because physiologists are respectable people, whereas psychologists are known to be strange creatures who embarrass their friends by pulling habits out of rats.

The Ancients, with the blessing of Aristotle, thought that learning took place in the heart. In the Renaissance the more romantic philosophers rejected the Schoolmen and exonerated the heart from such a dull and arduous task. But it is less than a century since learning was first studied experimentally. In 1875 Ebbinghaus began to learn by heart his collection of 2,000 3-lettered nonsense syllables, and from the results of his experiments drew his famous curve of forgetting. Some years later Pavlov made his memorable observation during some experiments on gastric secretion; he noticed that towards the end of an experiment secretion tended to occur before the animals were fed. He surmised that some higher nervous activity must have been intervening, and decided to use the phenomenon to study the action of the cerebral cortex. And so he started an exhaustive series of experiments on the conditioned reflex. The salivatory reaction was conditioned to bells, buzzers, metronomes and whirligigs, and the saliva was led from the parotid duct by a fistula into glass measuring rods.

While this investigation was in progress the study was taken up in other parts of Russia. Bechterev extended it to man, but in the Thirties human reflexology was declared un-Marxian, and Bechterev was removed from the field. In America the conditioned reflex

was seized upon as the ultimate unit of behaviour by Watson and his Behaviourist School; since then a vast amount of work has been done on animal learning in that country.

What is it?

The intelligent reader need feel no shame if he is uncertain of the exact meaning of the words 'conditioned reflex'; vagueness on the subject is fashionable in psychological circles; and in fact one American school denies its very existence. The classical Pavlovian situation will serve to illustrate the phenomenon. A dog is placed in a harness in a sound and smell-proof chamber; a low buzzing sound begins, and in a few seconds meat powder or acid is placed in the dog's mouth; at the same time the buzzing stops. This procedure is repeated at varying intervals and the dog's salivation is measured. At first the dog salivates only on the administration of the food or acid (the unconditioned stimulus or US), but after a few trials saliva appears during the buzzing sound (the conditioned stimulus or CS). The dog's behaviour has been altered by experience — he has been 'conditioned.'

The amount of acid produced during the buzzing (the conditioned response or CR) increases gradually to a maximum in about 30 paired presentations, or 'trials.' Then if the US is discontinued, the CR gradually declines — a phenomenon known as extinction.

A conditioned reflex, then, can be said to have been established when the following condition is fulfilled: — two successive stimuli are presented to the subject on two or more occasions, and one or more of the innate responses to the second stimulus occurs during the interval between the two stimuli on, but not before, the second or a later trial.

The Victims

The conditioned stimulus used is of little significance and is usually a whim of the

experimenter. The question of interest is, what responses can be made to precede in time the stimuli which normally evoke them? In fact large numbers of voluntary and involuntary movements as well as glandular secretions have been conditioned. The animals used range from *Paramecium* and *Infusoria* to Man. The alarm response of the worm and the human knee-jerk have been conditioned; so have the eye-blink response of dogs to a puff of wind and the increased silk production of the silk worm to a rise in temperature. Shagass has conditioned the reduction of the human alpha rhythm in response to light, and Shurrager the flexion of the hind limb of the spinal cat to an electric shock. Claims have been made for the zig-zag mating dance of the stickleback and the vitamin absorption of the rat. Even the chick in the egg and the foetus in utero have failed to evade the conditioning procedure. Hudgins has conditioned his own pupillary contraction, using his voice as the CS; so that his iris diaphragm obeys his spoken commands of 'contract!' and 'dilate!'. Yogis have probably been conditioning themselves for centuries.

Facts

When an experimenter overcomes his initial glee at being able to condition obscure responses in bizarre forms of life, he usually settles down to study the conditioned reflex and its associated phenomena in more detail. Quantitative studies of conditioning and extinction have been made; these show that 'degree of conditioning' tends to be a logarithmic function of the number of trials. 'Degree of conditioning' is of course not directly measurable (it has the logical status of a hypothetical construct, to use Bergmann's terminology); but the size, frequency and latency of the response and its resistance to extinction serve as indices, and they usually give similar results.

When a conditioned reflex has been extinguished it is easier to establish a second time, and if no further trials are given it tends to undergo spontaneous recovery. Conditioning occurs almost as rapidly if the US is omitted in one or even two trials in every three. If during extinction a third stimulus precedes the CS, it too begins to elicit a CR (second order conditioning); then if the original CS is conditioned to another response, the second order reflex remains the

same. (This result is used in arguments as to whether the CS is 'linked' with the US or the unconditioned response). Generalisation is a phenomenon which has received much attention:—if a stimulus similar to but not identical with the CS is presented, the CR tends to occur but to be reduced in size.

Pavlov made an extensive study of the phenomenon of 'inhibition.' Conditioned reflexes are very susceptible to stray stimuli, and a reduction of CR in this way Pavlov termed external inhibition. If an extinguished CS is presented with an unextinguished CS to the same response, the CR is reduced, and this is called internal inhibition. A similar inhibition is produced by a stimulus which has been associated with a CS during its extinction. (Note the similarity between this 'conditioned inhibitor' and a second order CS). Internal inhibition was also ascribed by Pavlov to the period immediately following the CS when the CS-US interval was more than about twenty seconds. He found that there was normally no salivation for the first ten seconds or so, but that during this period a distracting stimulus would produce a response. There is at least a superficial similarity between this phenomenon of disinhibition and the external inhibition previously described.

Complications

Before discussing the theoretical side of conditioning, it would be as well to point out, if not to resolve, a confusion which exists between conditioning and what is often termed instrumental learning. Instrumental learning has been very widely studied on the other side of the Atlantic, and consists of teaching cats to get out of cages or rats to run mazes in search of food. In fact in America maze-running has become to the white rat what hair-cutting is to the Italians and laundry to the Chinese. In more precise terms, the subject is presented with a stimulus, then induced to make some sort of response, and then given a reward. After a certain number of trials the response tends to follow the stimulus spontaneously. It is a pleasant form of learning to study, and its phenomena have given rise to many ingenious theories. Unfortunately these theories have been applied to the conditioned reflex, and conditioning data have been used as evidence for the theoretical formulations.

There are two essential differences between

conditioning and instrumental learning. First, in instrumental learning a new unit of behaviour must be introduced (e.g., the dog sits up and begs); in conditioning this is not necessary, for an existing response is merely made to occur earlier than it would have done otherwise. Secondly, in instrumental learning a reward must be given, whereas in conditioning this too is unnecessary. Theorists who desire to explain the two sets of phenomena by the same laws deny these differences. They say that in conditioning a new behaviour unit is in fact introduced, although often it cannot be observed. (There is of course no way of contradicting such an argument.) They also maintain that the results of the conditioned response are rewarding. This postulate is difficult to disprove, because as a general rule conditioned reflexes must give some biological advantage; otherwise the capacity to form them would probably not have evolved in the first place. It requires little dialectic for the sophist to turn biological advantage into reward.

However the all-embracing theorist may be attacked on other grounds. One important point is that in instrumental learning the reward is supplied by the experimenter, and is therefore an independent variable. In conditioning, the reward, if any, is a direct result of the CR, and is therefore a dependent variable. This is a vital difference when it comes to quantitative description.

Perhaps the most cogent argument for keeping 'reward' out of conditioning language is a logical one. The reader with behaviourist tendencies will have noticed, perhaps with horror, the word 'unpleasantness' creeping into the discussion, and indeed even the word reward may be making him jittery. Subjective expressions are very dangerous in animal psychology, and in this case have resulted in scientific trauma. The concept of reward is a response-determined construct; i.e., it can only properly be defined in terms of the animal's responses. Rather than saying, 'by giving my dog a reward of food I can make him learn to beg,' we should say, 'when I apply certain stimuli to my dog after he has performed a given act, he tends to perform the act again in those circumstances; such stimuli I shall call "rewards"'. While it seems pedantic to question that food is rewarding to a dog, it is presumptuous of us to assume *a priori* that we are rewarding a cat when we stroke it. And many of the rewards invoked by learning theorists are

more dubious than stroking. Moreover it is one thing to decide that a certain stimulus is rewarding, but quite another to measure the amount of reward it gives. Maze experiments overcome this difficulty by giving known quantities of food to rats of standard weight starved for a known period; but it looms up again when learning theory is applied to social psychology, where the rewards are more nebulous. One solution would be to standardise the reward in a prior experiment in the way that complement is standardised in the Wassermann test. But this would be extremely difficult in conditioning where the hypothetical reward is a dependent variable. In the case of acid and salivation it might be possible to measure the reduction in resultant oral pH due to the conditioned salivation; but at the silk-worm or even the alpha rhythm the most ingenious measurer would boggle.

Fortunately the data of conditioning can be handled without the concept of reward, and the theorist, like nature, can excusably abhor complication.

Theories

Attempts to speculate about the mechanism of learning are, as J. Z. Young pointed out in his recent lecture to the Bart's Physiological Society, as fascinating as they are unrewarding. Nevertheless, the literature of learning theory is vast. It will suffice to give examples of the three main types of theory which have been put forward: namely, the lower level theory, the mechanical model and the mathematical model. Pavlovian theory will not be discussed, as it attempts to explain data on the interaction of established conditioned reflexes rather than the conditioning process itself.

The lower level type of explanation was adopted by Konorsky, whose postulates are framed in terms of neurones and alterations at synapses. He supposes that fibre connections exist between all sensory centres, but lack transmitting synapses. Excitatory synapses are formed from a centre of subsiding excitation to one on rising excitation, while inhibitory connections are formed in the reverse direction. This and his other postulates can handle most of the facts of conditioning, extinction and generalisation, but fail to account for such phenomena as second order conditioning. Moreover the theory is not quantitative. But a less unsatisfactory neural theory has yet to be advanced.

The mechanical models range from cog-wheels and hydraulics to complicated electronic circuits. Perhaps the best known is Grey Walter's electronic tortoise, which has shown its ability to learn to a television audience. One hope of the model-builder is that, if he builds a machine which duplicates the learning behaviour of animals, the 'works' of his model will be similar to the 'works' of the brain, in pattern if not in substance.

A remarkably comprehensive quantitative mathematical theory has been devised by Hull, unfortunately including conditioning under the heading of instrumental learning. Here the stimulus variables such as CS-US interval and number of trials are related to the response variables by a mathematical equation. Since the overall equation relating so many variables is necessarily extremely complex, it has been simplified by the use of intervening variables. The sum is, as it were, computed in stages. The purpose of such a theory is primarily descriptive. Unlike the neural type of theory, it can make no predictions beyond the response to be obtained from the various values of the stimulus variables. But there is always a chance that the intervening variables, if wisely chosen, will turn out to have some physical basis.

Similarly the mechanical model, if treated as a 'black box', is a descriptive theory, and it has the advantage that it works out its own equations. Also it is usually a fascinating toy.

The reflexology of Everyday Life

What relevance, one may well ask, has conditioning to medicine and to daily living? Any lack of Anglo-Saxon sensitivity on this topic is amply compensated by the Russians. They thrust conditioning to the forefront of political and industrial life; Bechtereve, in spite of his long and brilliant manifesto on the Marxian basis of human reflexology, was declared ideologically dangerous; chairs of psychology tumble with the heads of the Politburo. Even the insipid and drawn-out controversy between Shurrager and Culler (who claim to have conditioned the spinal cat) and Kellog (who says that Shurrager and Culler's results are an artifact) has been imbued by a Russian journal with an aura of melodrama and cloak-and-dagger intrigue. Following Razran's translation, the Russian authors

take sharp issue with the 'reactionary mechanistic-idealistic doctrines' of Shurrager and Culler, and praise Kellog and others for their 'proper unmasking' of Shurrager and Culler as followers of the 'pseudo-scientific mystical metaphysical Lashleyan views'. (*sic!*) Kellog's actual statement was, 'Results like those of Shurrager and Culler follow as a logical sequence from the original experiments of Lashley'.

No doubt British professors are thankful for the indifference of the general public to the battles and revolutions of learning theory; but it is probably true to say that we are all undergoing some form of conditioning or extinction every hour of the day. Many feelings of general anxiety may be due to unconscious conditioned defensive reactions; and the conditioned flow of gastric juice at meal times may, I am told, precipitate a gastric ulcer in the irregular diner. Mechanisms related to those underlying the conditioned reflex are probably concerned in the organisation of sensory information, and in controlling the 'surprise' response. The work of Fry suggests a similar mechanism in rapid speech comprehension.

The application of conditioning procedures and theory to psychiatry lapsed after Pavlov, but some uses have been reported recently. Hilgard and Marquis have relieved hysterical paralysis by conditioning. Hamilton has demonstrated some interesting effects of ECT on the conditioned emotional responses of rats. Eysenck has used Pavlov's concepts of cortical inhibition to explain the differences between introverts and extroverts; and the theory may suggest appropriate treatment for the cortically inhibited psychopath and the cortically uninhibited obsessional.

Summary

In its sixty-odd years of life the conditioned reflex has been used as a tool, a technique, a theory, a measuring instrument and a hobby. It was claimed by the behaviourists to be the basic unit from which all complex behaviour is built; its very existence has been denied by their successors. It has encountered philosophical difficulties in its terminology; it has been engulfed and disfigured by compendious learning theories. Few species have escaped its application, and few parts of the body have eluded its probing hand. It has been used unwittingly by disciplinarian schoolmasters and thera-

peutically by sophisticated psychiatrists. Pavlov discovered it and the Russians fear it; the Americans deny it; the British ignore it. Few understand it and no one has explained it. It is a typical psychological phenomenon.

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BRITISH MEDICAL STUDENTS ASSOCIATION

PRE-CLINICAL SUMMER SCHOOL

SEPTEMBER, 1956

IN SEPTEMBER the B.M.S.A. London Region held its first pre-clinical 'Summer School.' The programme extended over four days, each being spent at a different London Hospital, and began at The London with an address by the Dean and ended at St. Bartholomew's with a social held during the evening in the recreation room in College Hall. This was the first venture of the B.M.S.A. into the field of Pre-Clinical Summer schools and out of 73 participants we are pleased to announce that thirteen came from this Medical College.

FIRST DAY

The first day at Whitechapel introduced us to the London's method of clinical demonstrations for pre-clinical students when Professor Clifford Wilson and J. L. D'Silva spoke on 'Physiology in Clinical Medicine' giving special emphasis to jaundice. After lunch Dr. Camps showed slides of material from famous cases including that of Emmett Dunn, and the day ended with an amusing introduction by Prof. Harrison to Percy, the Anatomy Department's pet seal.

SECOND DAY

Student Hostesses appeared on the second day at the Royal Free Hospital. Here the group learned something about Monarchical genetics from a talk illustrated with photographs and family trees tracing the Hapsburg lip. Dr. Walsh then gave an account of his department's research work on the causes of addiction to such drugs as Morphine, Pethidine and Cocaine, and the connection between such addiction and the citric acid cycle. The visit to Hunter Street was concluded by Prof. Bowdens lecture and demonstration on Applied Anatomy which included some work on embryos by Dr. Blunt.

THIRD DAY

At King's College historical aspects of both Pharmacology and Anatomy were discussed by Dr. Brownlee and Prof. Nicol respectively, and in the afternoon the school divided, one party being the guests of Messrs. May and Baker Ltd., who showed them over the Dagenham pharmaceutical works where they watched the manufacture of drugs. The other party went to visit the anatomical museum of the Royal College of Surgeons. These will be the subject of future visits by the Bart's members as next March approaches.

FOURTH DAY

On the last morning the School were the guests of St. Bartholomew's Medical College. Following an address of welcome by Prof. K. J. Franklin, Dr. Francis examined the field of Radioactive Isotopes demonstrating the uses of the many forms of Geiger counter. With the aid of rabbits he illustrated some of the clinical uses of isotopes. Lunch was taken after the showing of several departmental films. The previous afternoon's visits were reversed.

Through kind permission of the Dean and The Warden of College Hall proceedings closed with a social in the Recreation Room.

The Summer School was a great success. Its members have had the opportunity of meeting pre-clinicals from other hospitals, and have been able to attend lectures given by members of the teaching staffs of these hospitals. It is to be hoped that in future many more pre-clinical members of this hospital will take advantage of the opportunities afforded by our membership of the British Medical Students Association.

ROBERT M. HADLEY,
B.M.S.A. Pre-Clinical Representative.

THE VAN DEN BERGH REACTION—A REORIENTATION

by HERMANN LEHMANN

It was just about 40 years ago that Van den Bergh recorded that the bile pigment from the gall bladder differed from that present in the plasma of healthy people and that the plasma bilirubin of patients with obstructive jaundice behaved like that of bile taken from the gall bladder. The gall bladder pigment or 'bili-bilirubin' reacted with Ehrlich's sulphanilic acid reagent to give a deep purple colour. The 'haemo-bilirubin' of normal plasma which had not passed through the gall bladder failed to react with Ehrlich's reagent, yet if alcohol was added to the normal plasma (or for that matter to jaundiced plasma when the jaundice was haemolytic rather than obstructive) sulphanilic acid reacted with the previously inert bilirubin to give the same colour as was given directly with bili-bilirubin. Van den Bergh himself favoured a theory according to which a chemical change of haemo-bilirubin took place in the liver and he thought that the two bilirubins were different compounds. Others thought that gall bladder bile contained a catalyst which facilitated the colour reaction in the absence of alcohol. The most favoured explanation was that haemo-bilirubin differed from bili-bilirubin by being linked to protein. It was thought that the indirect-reacting bilirubin was still adherent to breakdown products of haemoglobin and that it was cleansed and deterged when it reached the liver. The protein-linked haemo-bilirubin was thought to be unable to pass the glomerular membrane or to react with Ehrlich's sulphanilic reagent, hence in haemolytic jaundice bilirubin did not appear in the urine and the Van den Bergh reaction in the plasma was negative.

However, it has become increasingly clear that both types of pigment are in the blood linked to protein. It has been suggested that they are linked to different proteins, the direct-reacting type being bound to albumin and the indirect-reacting pigment to globin. Nevertheless no one has really been able to prove that bilirubin was associated with any other protein than albumin on electro-

phoresis. It was also shown that the direct-reacting pigment gives a positive colour reaction whether albumin is present or not. Indeed in the acid conditions of the Van den Bergh reaction any association between bilirubin and protein could not possibly persist.

It was, therefore, of great importance that Cole and Lathe working at the Queen Charlotte's Maternity Hospital, London, observed in 1953 that there existed indeed two different bilirubins. This was shown by partition chromatography, and in the absence of any nitrogenous substances. It was possible to demonstrate that one of the two bilirubins was more soluble in water and was identical with that which gave the direct Van den Bergh reaction. The second, which was more soluble in organic solvents, gave the indirect Van den Bergh reaction. This explained for the first time why the addition of alcohol enabled the indirect-reacting pigment to combine with Ehrlich's sulphanilic acid reagent. It was merely a matter of adding alcohol to bring into solution a compound sparingly soluble in water.

It has now been shown by Billing and Lathe that the indirect-reacting bilirubin is the pure compound. Being rather insoluble in water it tends to dissolve preferably in nervous tissues hence it can give rise to Kernicterus. It is not dissolved in the glomerular filtrate and thus does not appear in the urine. In plasma the addition of alcohol is necessary to dissolve it before it can give the positive Van den Bergh reaction. In the liver bilirubin is conjugated with glucuronic acid. Glucuronic acid is frequently used by the liver for conjugation and detoxication; for instance para-amino-salicylic acid (PAS) is conjugated with glucuronic acid and excreted as such in the urine. On conjugation bilirubin becomes water-soluble, it will no longer preferentially combine with nervous tissue, it will pass through the kidney and it will give

Hermann Lehmann

Dr. Lehmann, M.D., Ph.D., qualified from Heidelberg and Basle. He is at present Senior Lecturer in Chemical Pathology at Bart's, [see *St. B.H.J.* 50 237 (1956)].

a Van den Bergh reaction without addition of alcohol. Recently Schmid reported from America that there are at least two glucuronic acid conjugates, the greater part of the direct-reacting pigment is present as the diglu-

curonide and a small proportion exists as the monoglucuronide. In future we shall have to change our conceptions of haemo- and bilirubin and think in terms of free and conjugated bilirubin.

A SIMPLIFIED SCHEME OF LABORATORY FINDINGS IN JAUNDICE

	SERUM BILIRUBIN			URINE		STOOLS
	Type	Van den Bergh Reaction		Bilirubin	Urobilinogen	Urobilinogen
		direct	indirect			
<i>Normal</i>	free	negative	<0.8 mg. %	absent	2 mg./24 hrs. i.e. "absent"	150 mg./24 hrs. in adults
<i>Obstructive jaundice</i>	conjugated	positive ++	raised ++	present ++	"absent"	lowered or absent*
<i>Haemolytic jaundice</i>	free	negative	raised	absent	raised ++	raised
<i>Acute hepatitis</i> <i>Obstructive phase</i>	conjugated	positive	raised	present	present	normal or lowered

* A very little urobilinogen may sometimes be found even in complete obstruction—contamination of faeces with jaundiced intestinal tract.

EXAMINATION RESULTS

UNIVERSITY OF LONDON

B.Sc. Special Examination Physiology August 1956

First Class Honours

Tooby, D. J.

Second Class Honours (Upper Division)

Townsend, J.

Special Second Examination for Medical Degrees July 1956

Bardard, B. M.	Bataineh, A. S.
Berry, W. H. C.	Burbidge, B.
Childe, M. W.	Cox, T. A. R.
Durrant, K. R.	Eddy, J. D.
Fox, G. C.	Gould, W. A.
Harris, D. M.	Hijazi, H. K.
Hudson, M. J. K.	John, R. W.
Jones, L. C. T.	Juniper, C. P.
McGrath, M. B. J.	Marshall, R. D.

Milburn, F. A.
Peebles, D. J.
Plant, J. D. C.
Roden, A. T.
Tchamouroff, S. E.
Willoughby, R. A. G.

O'Hanlon, N. M. P.
Pemberton, M. J.
Roberts, C. P.
Swallow, J.
Thomson, R. G. N.
Winch, R. D.

Special First Examination for Medical Degrees

June 1956

Bootes, J. A. H.	Christian, P. B.
Fell, R. H.	Jones, N. O.
Knight, C. R.	Pagan, W. H.
Shaw, A. B.	Telfer, A. C.

The following obtained exemptions:—

Bondarenko, A.	Collier, L. J.
Diamond, J. G.	France, R.
Gill, B. V.	Howes, A. C.
McNeill, C. A.	Sutcliffe, A. J.
Therkildsen, L. K. H.	Visick, J. H.
Watson, J. U.	Welch, D. M.

ABERNETHIAN SOCIETY

On October 5th Professor B. W. Windeyer, F.R.C.S., F.F.R., Professor of Therapeutic Radiology in the University of London and Dean of the Middlesex Hospital Medical School, addressed the inaugural meeting of the 161st session of the Abernethian Society. His subject was, 'The biological effect of ionising radiation.'

The Great Hall made a delightful setting for the meeting. A huge log fire was blazing in the hearth, and concealed lighting melted the portraits and lists of benefactors on the walls. One would like to think that the implications of the subject were affecting the Great Ones who looked down from their frames: Queen Victoria with downcast eyes, Henry VIIIth gazing challengingly to the front, Sir John Abernethy blushing in the glow of a pink spotlight.

After describing the various types of ionising radiation which exist, Professor Windeyer spoke of their uses in medicine, agriculture, industry, warfare, and scientific research. A little radiation, for instance, is useful in weaving to quieten charged nylon threads which would otherwise wreak havoc in the loom by attracting and repelling each other.

An overdose of radiation, such as occurs occasionally in radiotherapy, may lead in a few hours to vomiting, prostration and death. The second wave of symptoms follows in a few days; there is erythema, blistering and moist desquamation of the skin of the part irradiated; the general effects include leukaemia and aplastic anaemia. Sterilisation, sometimes temporary, may occur in women, and irradiation during the first months of pregnancy tends to produce a microcephalic foetus. The speaker dwelt briefly on the long term genetic effects; the increased incidence of an abnormality due to a rise in mutation rate depends on the type of gene concerned; for instance, achondroplastic dwarfism, which is associated with a dominant gene, would increase more rapidly than haemophilia, which is associated with a recessive sex-linked gene, and haemophilia in turn would increase more rapidly than phenylketonuria, whose determining gene is neither dominant nor sex-linked. There was a perceptible shudder in the room when the Professor introduced the concept of 'the genetically dead'.

The average background radiation is 0.1 röntgen per year. It has been increased by 25% in this country by various civilised practices, the main contributor being diagnostic radiography. The speaker mentioned the high local radioactivity of Cornwall, Aberdeen and Tibet, and pointed out that atomic energy establishments made approximately the same contribution as pedoscopes.

Professor Windeyer concluded his address by predicting that civilisation will come to depend more and more on ionising radiation. This, he said, is a challenge to Science; we must protect our population from the harmful effects by advances both in prophylaxis and in treatment.

Professor Rotblat opened the short Question Time which followed by pointing out that each person is somewhat radioactive and mentioning the danger inherent in the married state due to the mutual irradiation of husband and wife. He asked whether British experts accepted the American finding that the expectation of life of radiologists was five years less than the average. Professor Windeyer replied in the negative, on the grounds that the American figures were taken entirely from American journals. He pointed out the difficulty of sacking radiologists when they have received a certain dose, and said that although he would not reveal his own dose, he felt that he might have been sacked some time ago. Total personal radiation looks like becoming another of those hush-hush things like a lady's age.

Mr. Boston then reminded the company that last November a certain type of Red-shank, indigenous to Russia, was shot down in full spring plumage. On autopsy it was found to have radioactive gonads. The speaker parried the question deftly by remarking that the observation tallied well with the fact that radiologists are usually very handsome men.

Mr. I. G. Williams, in thanking Professor Windeyer for his lecture, said that the Professor was noted for the three Rs, rowing, rugby and radiotherapy. Mr. N. C. Roles, giving thanks on behalf of the Society, mentioned the hazards of sunbathing on the roof of the radiotherapy department. We came away from this most interesting lecture somewhat relieved about the state of the world, but full of sympathy for that unfortunate creature, the married radiologist of Aberdeen.

SPORTS NEWS

VIEWPOINT

DURING THIS month the Olympic Games are being held in Australia; all over the world sportsmen will be focussing their attention on the events that will occur inside the specially prepared Melbourne Stadium. Each day of the Games will bring forth new champions in almost every sporting sphere, and their names will become household words. For there to be one winner, there must also be many who do not win; Olympic losers are noted for being 'gallant losers', in keeping with the high traditions and spirit of the Games—the pleasure is not in winning, but in taking part.

It is therefore a matter of great pride to recall that many Bart's men have taken part, and given of their best, in helping to keep alive the spirit of the Games.

As long ago as 1908, three Bart's men represented Great Britain. T. H. Just, later to become an E.N.T. surgeon, ran in the 800 metres event and reached the final, while R. B. Etherington-Smith and J. S. Burn took part in the rowing events.

There was then a gap of 12 years before the Hospital was again represented. J. C. Ainsworth-Davies, now a genito-urinary surgeon, ran in the 400 metres, reaching the final and gaining 5th place. A comment in *The Times* says that on a very heavy track in the final, Ainsworth-Davies finished very strongly and might well have been third if the race had been five yards longer. He was also a member of the British team which won the 1600 metres relay race.

Then in 1924, Mr. H. B. Stallard, Ophthalmic Surgeon to the Hospital, was Britain's first string in both the 800 and 1500 metres at the 8th Olympiad in Paris. He reached the final in both events, being placed 4th in the 800 metres and 3rd in the 1500 metres. The captain of the British team had this to say at the time: 'Yet perhaps in some ways Stallard put up the finest performance of them all. In five days he ran five races—three rounds of the 800 metres, two of the 1500 . . . ; in his fifth (race) he beat the Olympic record, and came, after a marvellous last-lap sprint, within eight yards of Nurmi, the Finnish super-man. Few people knew that his last two races had been

run on a foot that caused him acute agony every time he put it to the ground.'

Also in 1924, a hurdler by the name of Laksmanan represented India, and he later entered Bart's as a student.

Aquatic sport came to the fore in the 1936 Games at Berlin, when R. J. C. Sutton captained the British Water-polo team.

Then to 1948, the first post-war Olympiad, when that great runner A. S. Wint gained the 400 metres gold medal, and came second in the 800 metres. Yet again in 1952 he was second in the 800 metres, and was a member of the record-breaking Jamaican 4 x 400 metres relay team.

Now that the XVth. Olympiad is upon us, it is timely to reflect that Bart's has contributed in no small measure to this the greatest of all amateur sporting occasions.

RUGGER

1st XV v. Reading Wednesday, 26th September.
Away. Won 17-5.

We opened the season against old opponents who appeared under a new name, for during the close season Berkshire Wanderers had become Reading R.F.C. We faced this opening campaign with some trepidation since, owing to a diversity of reasons, only six of last year's Cup team were available. To add to our difficulties we arrived at the ground in varying stages of changing, for delays *en route* had caused us to start changing in the coach. As to the game, we started very slowly and half-time found us trailing 3-5, a try by new-comer McMaster, after a combined movement by backs and forwards, was followed by a goal by Reading. In the second half things went rather better, and inspired by some brilliant play by Phillips, who had appeared the previous week for Middlesex, tries were added by Davies, Dobson, Halls and Phillips himself, the last being converted by Davies.

It had been an encouraging start to the season, but while the forwards had been good in the tight scrums, where Palmer and Roche were pushing well, the line-out work was very scrappy, and only the captain Mackenzie showed up consistently in the loose, whilst our very promising backs had never really got going as a line.

Team: B. W. R. Badley; R. M. Phillips; G. J. Halls; M. J. A. Davies; B. McMaster; R. Bonner-Morgan; B. Richards; J. Dobson; C. J. Carr; B. O. Thomas; D. W. Roche; J. W. B. Palmer; S. Costley; T. W. Gibson; J. C. Mackenzie.

1st XV v. Trojans Saturday, 29th September.
Won 25-3

This was another convincing win, but before exulting too much it must be mentioned that it was Trojan's fifth defeat in five matches. We were off to a flying start when in the first minute Halls completed a combined movement with an unconverted try, and the same player soon added two

fine penalty goals, both from near the touch-line. Before half-time our lead had increased to 17-0, through a try by full-back Badley, who went right through the opposition following a heel from the loose, and another by skipper Mackenzie. The first try was converted by Davies. In the second-half our scoring was limited to two tries by Phillips, one converted by Davies, while the Trojans got a consolation try in the corner in the last minute.

Our outstanding player was again Phillips, whose change back to the right wing seems to have done him immeasurable good. Badley at full-back did not get much to do, but it was good to see him bring off two fine tackles. The forwards in the line-out, where Roche was quite outstanding, showed some improvement, but the scrumming in the first-half, when our heavier opponents were still fresh, was not too good, even though it did improve in the second half when we established a monopoly of the tight scrums.

Forty-two points after only two matches, even though the opposition was not very strong, reflects great credit on the team's fitness and to the keenness of the pre-season training which the new captain has organised so well.

Team: B. W. D. Badley; R. M. Phillips; G. J. Halls; M. J. Davies; T. S. Matthews; R. Bonner Morgan; A. P. Ross; J. C. Dobson; C. J. Carr; B. O. Thomas; D. W. Roche; J. W. B. Palmer; J. C. Mackenzie; T. W. Gibson; H. Thomas.

1st XV v. Stroud. At Stroud, October 6. Lost 0-11.

Despite Stroud's impressive record this season our own earlier performances led us to approach this match with some optimism. This proved ill-founded, for we had forgotten that while we were having two easy wins Stroud had been playing five hard matches, and this difference in match practice was probably the key to the game. Stroud's bustling pack disrupted our backs and were quicker on the loose ball than our forwards. In the lines-out Roche and Palmer gave us the advantage, but Stroud had the edge in the tight scrums, while in the loose one noticed particularly the hard play of D. Richards who was making his debut for the hospital. Of the backs Badley had a fine game, whilst McMaster on the left wing showed promise, despite the lack of thrust from the centres.

Half-time found us trailing 0-3, an opening by the Stroud centres having allowed their right wing to cross, and soon after the interval the same player scored again after an almost exactly similar movement. After this we gave as good as we got but could not break down the Stroud defence. Their final score was a tragedy for us, resulting from an interception of an attacking movement of ours which ended with an easily converted try for Stroud.

The result was rather disappointing, but if the pack have learnt to cover and bustle more and if the centres can acquire some extra thrust we still have the makings of a useful side.

Team: B. W. D. Badley; R. M. Phillips; G. J. Halls; M. J. Davies; D. B. McMaster; R. R. Davies; B. Richards; B. O. Thomas; C. J. Carr; D. A. Richards; D. W. Roche; J. W. B. Palmer; J. C. Mackenzie (Capt.); T. W. Gibson; H. Thomas.

1st XV v. Woodford. October 13. Drawn 9-9.

A very disappointing result this, for Woodford had lost their previous four games. They evidently decided on a spoiling policy, and we had no answer to their tactics. We were handicapped by the early loss of Neely with a shoulder injury, but Howard Thomas, who took his place in the centre, did not slow the line down at all. The forwards, despite being lighter, had the edge in the tight scrums, but were outplayed in the lines-out and in the loose, where Jones, making his debut, was one of the few players to shine. The backs failed to get going as a line, even though Phillips had the measure of his man and rounded him time and again to put in some beautiful, but unlucky cross-kicks.

We got an early score when Phillips threw the ball right across to the opposite wing for McMaster to score easily, and just before half-time scrum-half Richards managed to touch down just before he was knocked into the corner-flag. In the second-half we went very slowly till Woodford scored a try which stung us into a quick heel leading to a try by Halls after a good break by Rees Davies. After this we played poorly, and Woodford equalised through two well taken penalty goals.

Team: S. G. I. Hamilton; R. M. Phillips; G. J. Halls; J. C. Neely; B. McMaster; R. R. Davies; B. Richards; B. O. Thomas; C. J. Carr; D. A. Richards; D. W. Roche; T. W. Gibson; H. Thomas; R. Jones; J. C. Mackenzie (Capt.).

1st XV v. Cambridge LX Club at Chislehurst on 17th October. Lost 8-24.

This game really showed up our weaknesses, but a rally in the last quarter did at least look as if we were learning our lesson as we went along. Cambridge had a dropped goal and a penalty before the game was well under way, then for about a quarter-of-an-hour play was pretty even. However, before half-time, B. A. F. Smith, the Leicestershire centre, had taken advantage of Bart's errors to score two tries, one converted, so that at the interval we were 0-14 down, despite having almost monopolised the tight scrums. Before long we were 0-24 down, Smith scoring again and making a try for his winger, both tries being converted from a long way out. From this stage on we gradually came back into the game and in the last ten minutes our superior fitness had us well on top. Mackenzie crossed under the posts after McMaster had swung the ball inside, and this try was converted by M. J. Davies, who a few minutes later dropped a beautiful goal from well outside the 25 yard line.

The forwards had slightly the better of the tight, and slightly the worse of the line-out where we were usually only successful if the ball was knocked-back, but the covering and the heeling from the loose were still poor. The backs looked better in attack in the second half than in any of the previous matches, whilst the fielding of Hamilton at full-back was faultless.

Team: S. G. I. Hamilton; R. M. Phillips; G. J. Halls; M. J. A. Davies; A. B. M. McMaster; R. R. Davies; B. Richards; J. C. Dobson; C. J. Carr; D. A. Richards; J. W. B. Palmer; W. P. Boladz; H. Thomas; R. Jones; J. C. Mackenzie (Capt.).

1st XV v. R.M.A. At Chislehurst, October 20th.
Lost 3—6.

Another disappointment this, for with Sandhurst weaker than for some time we had hoped to register our first win over them for several years. The team, however did not rise to the occasion, and there seemed to be a strange lack of determination, throughout the side. The heeling from the loose was again bad, and the tackling was weak at times.

The scores were all penalty goals. Sandhurst scored first, then M. J. Davies equalised for Bart's before the Sandhurst winner was kicked shortly after half-time. After this we were on the attack a lot but the Sandhurst covering was too good—an example to our forwards. One was left reflecting on the large number of penalties awarded, and on a spectator's comment that Bart's hadn't produced a consistent kicker in his 21 years' experience.

Team: S. G. I. Hamilton; R. M. Phillips, G. J. Hallis, M. J. Davies, A. B. McMaster; R. R. Davies, B. Richards; J. C. Dobson, C. J. Carr, T. W. Gibson; D. W. Roche, J. W. B. Palmer; R. Jones, J. C. Mackenzie, H. Thomas.

"A" XV v. Trojans. Lost 6—11.

"A" XV v. City of London School. Won 28—3.

SOCCER

1st XI v. Caledonian Football Club. October 6.
Won 5—4. Scorers: Andan (2), Iregbulam, Johnson, Gould.

The Bart's Soccer season again opened in conditions ideally suited for good football. The Bart's team had almost a new look about it having five new faces in its ranks. The game started at a cracking pace, this being the first game played by both Clubs. Honours were remarkably even in the first half, both sides having had many chances and many near misses. The fact that Bart's led at half-time by one goal to nil was due to Gould who towards the interval had seized on a through ball and promptly crashed a low ground shot past the opposing goalkeeper.

The second half started with a spate of goals from the Hospital forwards. With the half not more than five minutes old Iregbulam with a well placed shot put Bart's two goals up. Soon afterwards Andan out on the right wing flighted across a perfect centre which deceived the opposition goalkeeper and finished in the back of the net. Credit for the fourth goal must again go to Andan who scored with a shot into the top corner of the net. Our opponents, who had not seen much of the ball up to now in this half, fought back and scored. Their triumph, however, was short-lived because almost immediately Johnson scored Bart's fifth goal with a hard shot through the goalkeeper's legs. At this stage the game underwent a startling change, Bart's losing their midfield mastery and the Caledonians gaining the initiative. The Caledonians quickly added to their goal tally by scoring three very good goals. The game then developed into a battle between the Bart's defenders and the opposition forwards. The final whistle went with no further score and Bart's had won their first game of the season.

Credit must go to the defence for their staunch play throughout the game—their tackling, distribu-

tion, and positional play will improve enormously with match practice and they will then provide an even firmer foundation for the revival of Bart's soccer.

The forwards will have to realise that one pass is often better than three. They should endeavour to open out the game more and when they do this more goals will be forthcoming.

Team: J. Mercer; R. Kennedy, D. Prosser; Dr. J. A. Parrish, A. Whitworth (Capt.), D. Smith; A. Andan, F. Iregbulam, T. Johnson, R. Pilkington, A. M. Gould.

HOSPITAL LEAGUE

v. St. Mary's Hospital. Home. Drawn 3—3.

Scorers: Iregbulam (2), Johnson.

Bart's opened their Hospital League fixtures game against St. Mary's Hospital on a dull day and on an ideal pitch. A variety of reasons caused changes in a winning Bart's team. During the first half of a very evenly contested game, Bart's managed to score two goals. The first was scored by Iregbulam who seized on a fumble by the opposition goalkeeper and scored with a well paced shot. The second was scored by Johnson, our centre forward, who on being given a through ball down the middle of the field, raced on to it and scored with a left-footed drive. During the first half, Gould was prominent on the left wing, but was inclined to hold on to the ball too long and so the forward line was slowed down as a whole. However, Gould was very unlucky not to score after a dribble beating several men, but ending with a shot over the bar.

Within a few minutes of the restart, St. Mary's scored and this seemed to take some of the fight out of the home team. In a matter of five more minutes, Bart's were trailing 3—2, after holding a 2 goal lead and fighting hard to prevent a further St. Mary's score. At this point in the game, St. Mary's were in full command both in midfield and in front of the Bart's goal. Only standing back by defenders Kennedy, Whitworth and Juniper, and also good keeping by Mercer, prevented a further Mary's score. Our equaliser was scored by Iregbulam who on receiving the ball with his back to goal, swivelled round on a sixpence and scored with a low drive into the bottom corner of the net—a splendid goal for the equaliser. The score remained 3—3 until the end of a clean, well fought game.

The surrender of a two goal lead reflects both on attack and defence: the attack for failing to repeat their first half cohesion and scoring ability by a seeming lack of effort and a feeling of despair during the second half; the defence for their inability to cover as well as they did during the first half. The defence was strengthened also by the return of Juniper at centre half after having sustained an injury at the beginning of last season. Perhaps after a few more games, he will regain his confidence, both in his tackling and ball distribution.

Team: J. Mercer; R. Kennedy, A. Whitworth; M. Pemberton, C. Juniper, R. Pilkington; A. Andan, F. Iregbulam, T. Johnson, W. Berry, A. M. Gould.

1st XI v. Old Parkonians. Lost 2-1.

In perfect conditions at Chiselhurst, Bart's suffered their first defeat of the season against the Old Parkonians. The result, however, cannot be said to be a true reflection of the play for Bart's played much better than previously this season and had the ball run more kindly for them they might well have won.

The game began at a fast pace with both sides playing good football in midfield but failing to score until a bad defensive mistake let the Old Parkonians score the only goal of the first half.

After half-time Bart's gained the ascendancy and about 20 minutes from time Gould fastened on to a through pass to put Bart's level. With Prosser, Bart's outstanding player, often starting attacks from full-back the Hospital continued to press, but brilliant goal-keeping, with some fine help from the posts prevented Bart's from adding to their score. It was against the run of play that the Old Parkonians scored the winning goal, following a good cross from their right wing, just before the final whistle.

Team: J. Mercer; R. Kennedy, D. Prosser; Dr. J. A. Parrish, C. Juniper, A. Whitworth (Capt.); A. Andan, P. Watkinson, L. Iregbulam, R. Pilkington, A. Gould.

HOCKEY CLUB

The following were elected officers for the season 1956-57:

Captain — J. B. Nichols
Hon. Sec. — N. C. Roles
Hon. Fixture Sec. — D. S. Wright
Hon. Treasurer — C. S. Goodwin

PROSPECTS

With most of last year's team still available, the prospects for this season are bright, especially so, since P. Drinkwater is now playing for us whenever not required by Southgate. The practice games early on produced one or two good new players from amongst the Preclinicals. We are again unlucky to be without C. S. Goodwin for the start of the season, but we hope that he will very soon be well enough to play again.

1st XV v. City of London College. October 13. Lost 3-4.

This was a disappointing start to the season. Bart's started well and were soon a goal up following a good forward movement. C. L. C. now retaliated with another goal and from then on, play swung from end to end, C. L. C. scoring twice more and Bart's once.

Soon after half-time Bart's equalised and with play mostly in the C. L. C. half it looked as though we might win. Then, however, one of the C. L. C. forwards, using his foot to full advantage, scored while an amazed Bart's defence stood looking on. After this goal Bart's fought back in vain and failed to equalise although there were close chances.

Despite the indifferent state of the ground, the forwards managed to have some good passing movements and they were well supported by their halves and backs.

Team: R. P. Doherty; R. G. L. Smith, N. J. C. Grant; M. B. Bishop, J. B. Nichols, D. S. Wright;

J. R. Nicholson, A. S. Tabor, A. S. Anderson, N. C. Roles (3), A. P. Marks.

1st XI v. Imperial College. October 17th. Drawn 3-3.

This was an enjoyable game and a very satisfactory result considering that Bart's were playing an "A" side and were without one of their players for the first fifteen minutes. Imperial College opened the scoring early on with a hard shot which gave Stark little chance. Bart's soon retaliated and, following a good forward movement, Roles equalised. From then on play swung from end to end and not long before half-time Church scored a very nice goal. In the second half Imperial College had many very dangerous movements and it was only due to some stout defence, in which Nichols figured prominently that only one goal was scored during this time. Towards the end Bart's scored again when Roles followed up a shot by Church, but soon after Imperial College managed to equalise.

A game with everyone going really hard and playing together well.

Team: J. E. Stark, J. A. Garrod, R. G. L. Smith, D. S. Wright, J. B. Nichols, D. Goodwin, P. J. Kingsley, A. P. Marks, R. B. Church (1), N. C. Roles (2), C. J. M. O'Keeffe.

1st XI v. R.N.C., Greenwich. October 20th. Drawn 1-1.

The general verdict of this match was that Bart's were "incredibly lucky." With what looked a good side on paper, we were continually beaten to the ball. R.N.C. did most of their attacking with two fast, hard-hitting wings and it was only due to some good defence by Doherty in goal, Nichols and Ross at back, and Tait at centre half and the extraordinary inability of the R.N.C. forwards to get the ball between the goalposts, that we survived. Their one goal followed a good forward movement which resulted in Doherty being drawn out of goal. Our goal came when Roles followed up a shot by Anderson from a long corner.

This was not an inspiring game from the point of view of the Bart's forwards, partly due to lack of co-ordination and partly to extremely good marking by the R.N.C. defence.

Team: R. P. Doherty, H. B. Ross, J. B. Nichols, R. G. L. Smith, J. A. Tait, B. Preiss, H. V. Blake, A. S. Anderson, R. B. Church, N. C. Roles (1), J. R. Nicholson.

GOLF**v. St. George's Hospital, at Dulwich. Lost 3 matches to 2.**

J. Sugden—Lost 3 and 2; Won 10 and 8.
J. S. Price—Lost 3 and 2.
D. Rhys-Phillips—Won 2 and 1.
J. T. Silverstone—Lost 7 and 5.

AUTUMN MEETING

This year the golf club held its Autumn meeting on October 3 at Moor Park. It was a fine sunny day and the conditions were good although there was little run on the ball. Unfortunately Mike Scorer, the holder for the past two years of the Girling Ball Cup, was unable to defend his trophy

due to a shoulder injury. This year, Charles Stephenson, mastering the high course with some accurate iron play, was the winner and David Rhys Phillips the runner-up.

REVIEW OF THE SEASON

This year fewer matches were played as it was felt that last year's fixture list was too full for the small number of regular players in the club, but of the fourteen matches, seven were won, six lost and one drawn.

In addition the Summer meeting at Sunningdale was well attended, and once again Tandridge Golf Club provided an excellent day's play and generous hospitality.

The Staff match, fully reported in the July *Journal*, was another enjoyable day's golf. The regular inter-hospital matches provided some keen games and it is hoped that again next year new members will be able to represent the hospital in these matches.

WOMEN'S TENNIS

SEASON 1956

In spite of the bad weather this summer the club played six matches and reached the 2nd round of both the University cup and the United Hospitals Cup. We were unlucky this season in having several injuries to regular members of the team. It was also unfortunately impossible to arrange a tour at Oxford.

However, we had several most enjoyable matches, perhaps the best being one against Middlesex Hospital in the first round of the Hospitals Cup which we won 5 matches to 4.

Our thanks are due to Professor Rotblat, the President of the club, for all the helpful interest he has shown in the club during the season and also for the tea he so generously provided at the Annual General Meeting.

Other officers of the club season 1956:—

Captain: A. M. Macdonald.

Vice-Captain: J. Chambers.

Secretary: J. Hartley.

Treasurer: J. Tuft.

Committee Member: J. Swallow.

Matches

- v. London Hospital — Won — 5 matches to 4
- v. Middlesex Hospital — Won — 5 matches to 4
- v. University College — Lost — (unfinished 6-2)
- v. London Hospital — Lost — 4 matches to 5
- v. Bedford College — Lost — 3 matches to 6
- v. Charing Cross Hospital — Won — 7 matches to 2.

The following played in the team during the season:—

J. Arnold, B. Barnard, G. Barraciough, L. Bratton, J. Chambers, M. Goodehilde, J. Hartley, A. M. Macdonald, J. Swallow, I. Tomkins, J. Tuft.

NURSES' SWIMMING

INTER-HOSPITALS GALA

The Annual Gala of the Inter Hospital Nurses' Swimming Club was held at the Marshall Street Baths on Thursday, October 11th at 7.30 p.m. It was pleasant to return to this Bath again, which was looking particularly attractive after redecoration.

Having entered for all the events, we had managed to survive three of the heats and were represented as follows:—

Plunging — Nurse Swannell

Diving — Nurse Hargreaves

Style contest — Nurse Robinson

Eleven Hospitals participated in the Gala and competition was very keen, the swimmers being encouraged vocally by their various supporters, particularly in the team races. The time taken by the winning teams made us realise how necessary it is to practice to reach such a high standard. This is a problem we are likely to find difficulty in solving until we have a swimming Bath of our own.

The prizes were presented by Lord Astor of Haver. The Lady Samuelson Challenge Cup for Plunging was won for us by Nurse Swannell for the third year in succession with a Plunge of 64 feet.

We hope that next year we may perhaps return with more trophies. Talent spotting is very difficult, and we wish, in this connection, that it were possible to persuade nurses not to 'hide their light under a bushel.'

REVIEWS

THEATRE

Doctor In The House

VICTORIA PALACE

The wisdom of staging a version of 'Doctor in the House' might be questioned, as the events in the book and the film would not seem to be representable within the confinement of a theatre. Ted Willis, who adapted the book by Richard Gordon, has overcome this difficulty by making the whole action take place in the lodgings of Grymsdyke, Sparrow and Evans, who, in this version, are room-mates from the start of their student career. Vera (billed as a 'lady in waiting') is the fourth occupant of this somewhat untidy, but wholesomely healthy establishment.

Having this permanent set requires the coming to the digs of several important persons, including

Sir Lancelot Spratt, who has become Simon Sparrow's uncle in the process of adaptation, and matron, too realistic for the comfort of many.

The funniest part of the play is a skit of a Christmas Ward Show. Whether or not Bart's is particularly represented is debatable, but the allusion to the butchers in Smithfield seems to strike near home.

Alan White, as Tony Grymsdyke, gives the best all round performance in an evening of mediocre acting. At the end the feeling remains that we have seen it all before, and don't terribly want to see it again!

T. R.

BALLET

Those of us who have had the good fortune to see the Bolshoi Ballet Company, must have been

slightly surprised but more than satisfied with the performance. The differences of style of the two countries may be compared to the differences between two dialects of a common language.

I saw the second night of what must be considered their *piece de resistance*, 'Romeo and Juliet'. For me it typifies Russian ballet today. The whole production differed greatly from an English one and I think it can teach us a great deal. The decor is very startling and both scenery and costumes are superb. The former exceeds anything our companies can envisage; it appears solid and realistic and does not sway visibly as someone leans against it. I was particularly impressed by the meticulous painting of the backcloths. Although all the settings are good, three deserve special mention: the Ball might have been taking place in one of our stately homes; the graveyard would have provided Grey with a background for his Elegy, for effective simplicity however; Friar Lawrence's cell would have been difficult to surpass.

The choreography is a little strange, it produces dancing which is robust and boisterous, although I would not say less refined than ours. The grouping is excellent and they never leave the stage free of movement. The standard of the corps de ballet is high and where we would have regimented movements they have true crowd scenes.

The principal dancers, (I saw Struchkova and Gofman) were slow to warm up but I thought them good by any standards. Their dancing, however, differs from that of our leading dancers in several respects. The whole tempo is quicker so that the recovery as we know it is hidden by the next movement. Their mime, as that of the whole company, is outstandingly natural and many pleasing but meaningless gestures of our ballet are missing. I was naturally disappointed to miss Ulanova, but at the expense of being told that it is only 'sour grapes' I shall take comfort in the opinion of Cyril Beaumont who says that Struchkova is the better dancer.

In conclusion, I feel that the standard of the Russian dancing is equally as good as ours but their conception of Ballet as an art is very different. While appreciating the spectacle presented by the Russians, I prefer the English interpretation.

J. S.

BOOKS

PHYSICS PSYCHOLOGY and MEDICINE by J. H. Woodger, Cambridge University Press. pp. 146. 8s. 6d.

Within a relatively small number of pages the author has succeeded in crystalizing ideas pertinent in the education of every doctor. He mentions at first two of the great needs in the medical world: one is the need for more psychiatrists in a country where over two fifths of the hospital beds are filled by those requiring psychiatric treatment; the other is the need for a more rational approach to the formulation of theories—in fact he calls his book a methodological essay.

One of the main reasons he gives for the preference shown by medical students for the more somatic branches of medicine is the pre-eminence of the physical sciences. It is the author's contention that all biology is *not* either biophysics and biochemistry, but unfortunately 'no new hypotheses are to be sought in biology other than those ready-made by physics and chemistry.' He then proceeds to elaborate on the construction of hypo-

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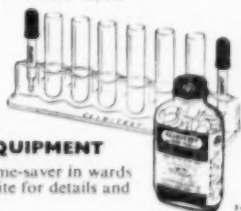
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theses in general. In this connection appears the following provocative proposal: 'Instead of explanatory hypotheses being treated with the *maximum* scepticism when they are *new*, and the *minimum* when they are *old*, a reversal of this policy might be profitable.' (author's italics). This suggestion is supported by the observation that experimental evidence which conflicts with an established theory is usually unaccepted.

The last few sections are devoted to a discussion of medical psychology, its validity as a therapeutic tool, and its relation to other sciences. In this final part Dr. Woodger manages to refute convincingly some of the criticisms that have been levelled at psychology—he feels that psychology as a science should not be judged by the criteria of the physical sciences. He pleads 'for the recognition of the autonomy of the sciences.'

This book is well worth paying the compliment of the concentration which it requires. It can be recommended to all students of science and medicine as a refreshing intellectual experience—a book to be in every library.

J.T.S.

BOOKS RECEIVED

Inclusion in this column does not preclude review at a later date.

THE PRINCIPLES AND PRACTICE OF MEDICINE, 3rd ed. by Sir Stanley Davidson, E. & S. Livingstone. 35s.

DISEASE IN INFANCY AND CHILDHOOD, 2nd ed. by Richard W. B. Ellis. E. & S. Livingstone. 50s.

AIDS TO DISPENSING, 5th ed. by G. M. Watson Ballière, Tindall & Cox. 7s. 6d.

POTT'S PARAPLEGIA by D. L. Griffiths, H. J. Seddon and R. Roaf. Oxford University Press. 50s.

PHYSICAL METHODS IN PLASTIC SURGERY by Joseph P. Reidy. Actinic Press, pp. 69. 12s. 6d.

MODERN OPERATIVE SURGERY, Vol. II, 4th ed. by G. Grey Turner and Lambert Charles Rogers, Cassells. 75s.

CARDIOLOGY, 2nd ed. by William Evans. Butterworth. 92s. 6d.

INTERESTING CASES AND PATHOLOGICAL CONSIDERATIONS by F. Parkes Weber, M.A., M.D., F.R.C.P., F.S.A. H. K. Lewis, pp. 77. 18s. 6d.

ALCOHOLISM by Lincoln Williams. E. & S. Livingstone, pp. 62. 8s. 6d.

AN INTRODUCTION TO DERMATOLOGY, 12th ed. by G. H. Percival. E. & S. Livingstone. 45s.

THE QUEEN CHARLOTTE'S TEXTBOOK OF OBSTETRICS, 9th ed. J. & A. Churchill. 45s.

AN ATLAS OF DISEASES OF THE EYE by E. S. Perkins and Peter Hansel. J. & A. Churchill. 42s.

AIDS TO THE NURSING OF VENEREAL DISEASES, 2nd ed. by E. M. Ryce Horwood, Baillière, Tindall, & Cox, pp. 156. 8s. 6d.

AN OUTLINE OF BACTERIOLOGY AND IMMUNITY by Ronald Hare. Longmans. 35s.

PRICE'S TEXTBOOK OF THE PRACTICE OF MEDICINE, 9th ed. edited by Donald Hunter. Oxford University Press, pp. 1774. 63s.

SORANUS' GYNECOLOGY, translated by Owsei Temkin. Johns Hopkins Press, 258pp. 40s.

DISEASES OF THE HEART AND CIRCULATION, 2nd ed. by Paul Wood. Eyre & Spottiswoode. 5 gns.

A MANUAL OF HUMAN ANATOMY, Vols. I, II, & IV by J. T. Aitken, G. Cansly, J. Joseph & J. Z. Young. E. & S. Livingstone. Vol. I—14s., Vol. II—16s., Vol. IV—12s.

PYE'S SURGICAL HANDICRAFT, 17th ed. edited by Hamilton Bailey. John Wright, 876 pp. 52s.

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